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Restructuring Paramedical Jobs

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Making Better Use of Health Workers

Rare indeed is the discussion or article concerning the Nation's health care system in which the word crisis doesn't pop up. The litany is familiar: $100 a day or more to stay in a hospital; health care charges rising faster than any other major element of the cost of living index; a shortage—or a maldistribution—of doctors and other highly trained medical personnel. And so on.

There are, of course, no easy answers. Often, progress on one front only gives rise to problems on another. For example, technological advances greatly enhanced the ability of doctors to diagnose and treat many complex illnesses. At the same time, however, the growing use of expensive computers and other sophisticated machines aggravated our health care system's economic condition.

Even with the increased use of machines, the Nation's health care industry remains highly labor intensive. Employment in health occupations is estimated at about 5 million, and the supply of health workers has doubled in the past decade. Given these numbers, it is apparent that devising ways to make better use of health workers is an important element in controlling medical costs. And that is exactly what two economists from Boston's Northeastern University are trying to do. A report on how they are *Restructuring Paramedical Jobs* begins on page 2.

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Ellis Rottman

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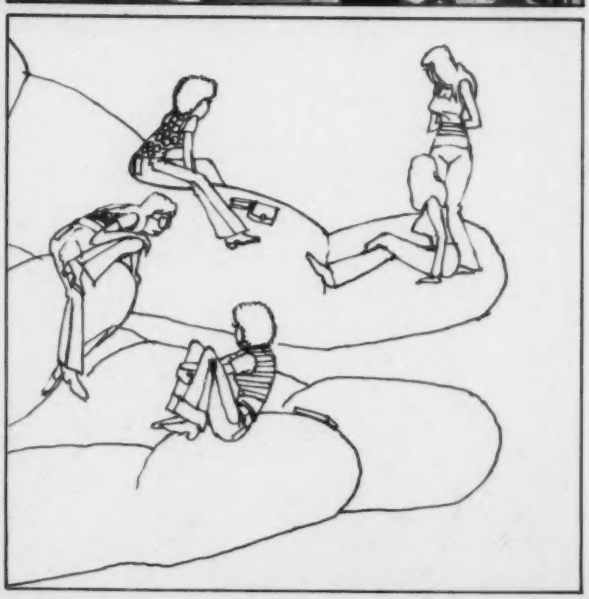

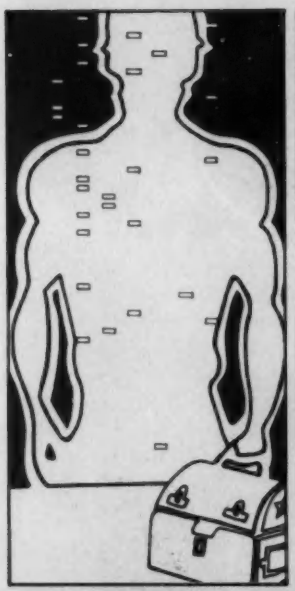

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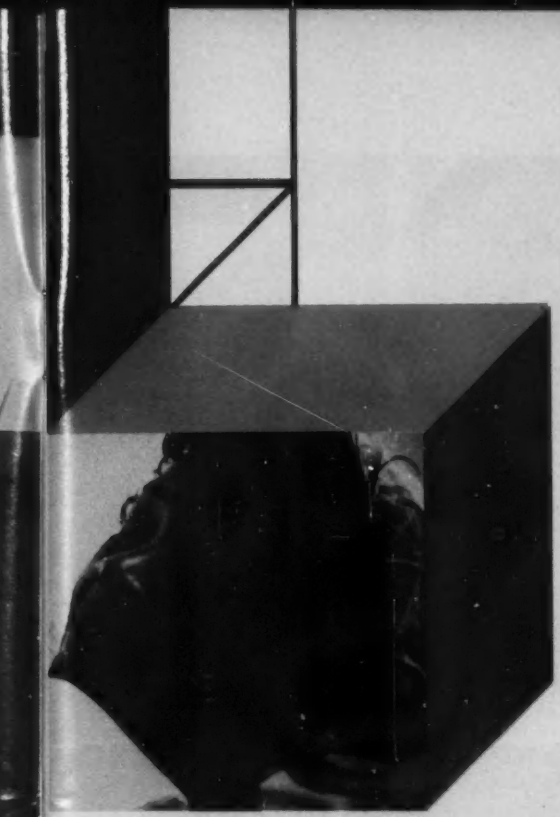
Restructuring Paramedical Jobs



Inefficiency, dead-end jobs and personnel shortages—this is the stuff of which our country's health care crisis is made.

More workers would help, but an increase in the number of physicians, nurses, technicians, and other medical personnel won't solve the problem alone. The National Advisory Commission on Health Manpower pointed this out in 1967, when it reported:

"It is true that substantially increased numbers of health manpower will be needed over time (see chart). But if additional personnel are employed in the present manner and within the present patterns and 'systems' of care, they will not avert, or even perhaps alleviate, the crisis. Unless we improve the system through which health care is provided, care will continue to become less satisfactory, even though there are massive increases in cost and in numbers of health personnel."

What needs to be done? Part of the solution, a more effective use of paramedical workers, is the subject of a series of studies by Harold M. Goldstein and Morris A. Horowitz, both economics professors at Northeastern University in Boston. Under contract to the Manpower Administration, Goldstein and Horowitz began their studies in 1967. Their first project, completed a year later, concluded that manpower shortages at the 20 Boston-area hospitals they surveyed were sometimes the fault of the hospitals themselves.[1]

Licensing requirements and education and training prerequisites for various occupations often were arbitrary and unnecessarily high for the duties involved. As a result, applicants who were competent to perform the work got turned away. The researchers also found that in many cases paramedical personnel weren't used efficiently, that the duties of high-level workers often overlapped with those of low-level workers, and that there was little opportunity for upgrading or promotion from the lower ranks.

Based on these findings, they recommended, among other things, that hospitals:

- Revamp their paramedical job structure to take advantage of the skills some workers can acquire through education and on-the-job training.
- Establish hiring standards that are relevant to the duties involved in each occupation.
- Coordinate their hiring standards to create greater opportunities for disadvantaged workers without sacrificing the quality of health care.
- Develop job promotion ladders and furnish on-the-job training for workers who want to move up.

Theory Put Into Practice

All well and good. What happens, though, when a hospital attempts to implement changes such as these? That question sparked the researchers' next project, a 2½-year study of paramedical staffing practices at a single hospital, including an effort to institute changes based on their recommendations. The Cambridge (Mass.) Hospital, a municipal institution with 200 beds, agreed to participate in the project.

In their report on this study, *Restructuring Paramedical Occupations*,[2] Goldstein and Horowitz explain that they had four distinct purposes in mind: First, to analyze the hospital's hiring standards to see how they related to the actual functions of various paramedical occupations; second, to recommend changes designed to improve the use of paramedical manpower at the hospital; third, to evaluate the success or failure of each recommendation that is actually implemented; and fourth, to measure any changes in the quality or quantity of health care that result.

Two things make this approach unusual. One is the researchers' intention to act as change agents in the hospital. The other is their attempt to gauge the degree of success their recommendations achieve.

The study involved nearly 90 percent of the hospital's 204 paramedical personnel in these categories: Registered nurse, licensed practical nurse, nurse aide, orderly, ward secretary, surgical technician, psychiatric attendant, X-ray technician, electrocardiogram (EKG) technician, inhalation therapy technician, neighborhood health worker, laboratory technician, and administrative and supervisory personnel.

Using both interviews and observations of workers on the job, the researchers recorded the tasks performed by each category of worker, then compared them to the tasks the workers thought they should perform and those tasks which should be left to others. The results largely bore out earlier findings. There was a great deal of overlapping of tasks across the board, with highly skilled workers often doing things that could easily be done by workers less skilled and less highly paid.

For example, it was discovered that registered nurses spent more time than either nurse aides or orderlies straighten-

[1] This study, *Higher Standards for Paramedical Manpower*, is available from the National Technical Information Service, Springfield, Va., 22151, for $3 for a paper copy and 95 cents for microfiche (specify accession number PB 179846). Please enclose payment with order.

[2] The full two-volume study is available from the National Technical Information Service, Springfield, Va., 22151, for $3 per volume for a paper copy and 95 cents per volume for microfiche (specify accession numbers PB 211113 for Volume I and PB 211114 for Volume II). Please enclose payment with order.

ing up and cleaning around patients' beds, the nurses' station, utility rooms, and other places. Overall, registered nurses spent almost 25 percent of their time performing what the researchers classified as the "simplest" functions—tasks that could easily be handled by workers with less education and training.

Although the "most difficult" job functions did tend to be performed by those with the highest levels of training and knowledge, lower level paramedical personnel performed them "more than occasionally," the researchers noted. This happened most often during the night shift, when licensed practical nurses, nurse aides, and orderlies often had to perform tasks normally reserved for registered nurses or physicians during the day.

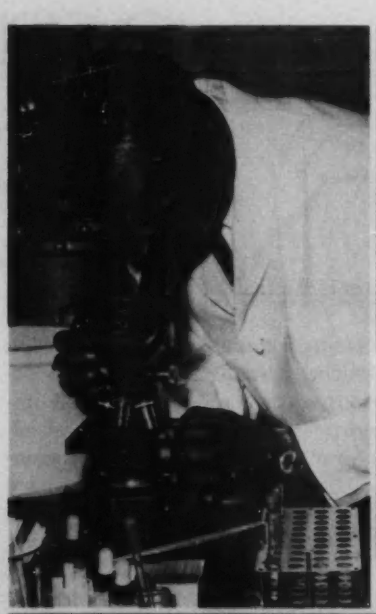
Upward Mobility Stifled

Another problem identified in earlier studies—the lack of opportunities for lower level paramedical personnel to get promoted to higher job categories—also surfaced at the Cambridge Hospital. Most registered and licensed practical nurses did feel they could eventually rise to a higher position, but the majority of nurse aides and orderlies considered their jobs dead ends. Most nurse aides, however, said they would like to move up if they could; most orderlies seemed satisfied to stay where they were.

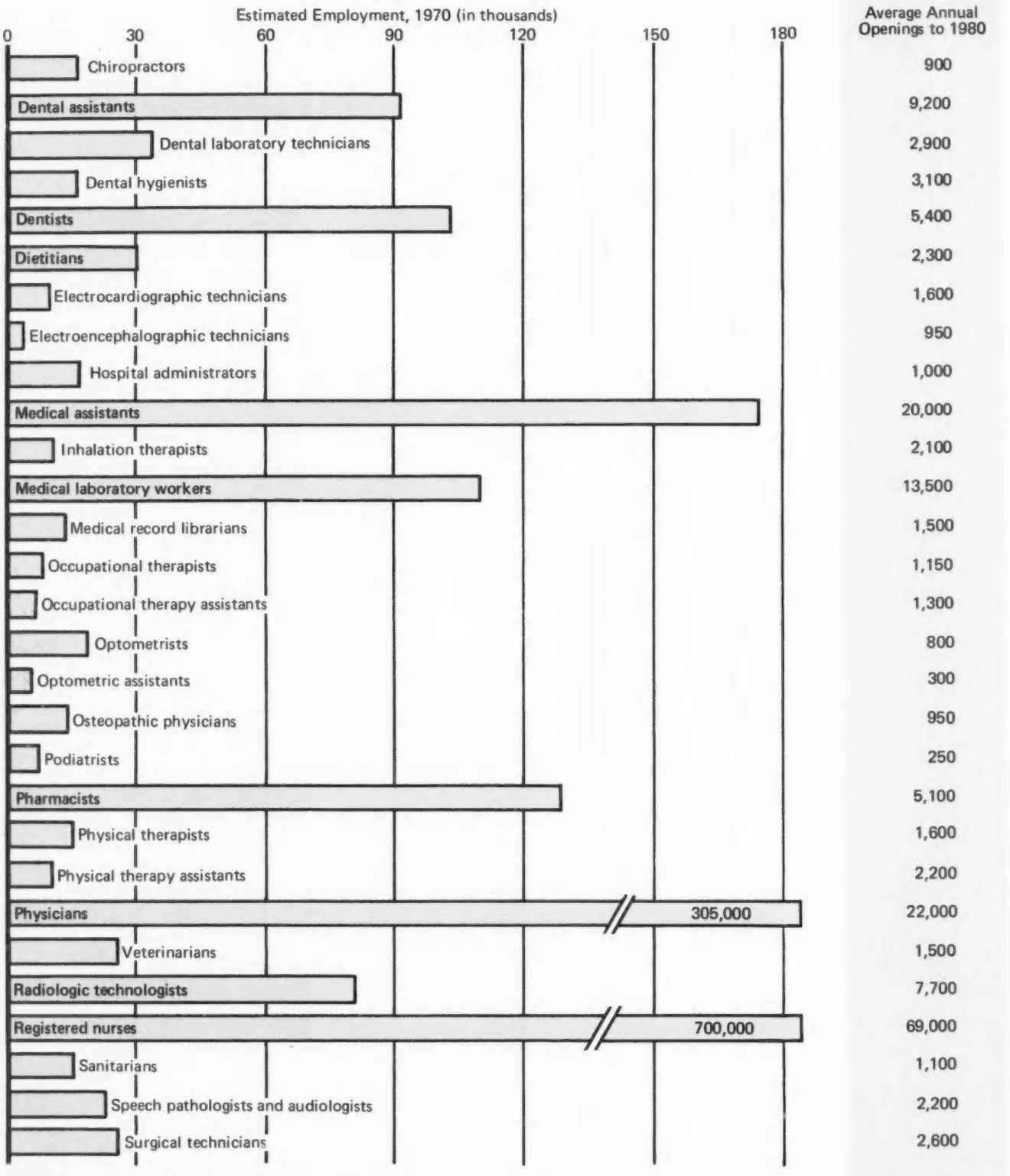
"Obviously," the report observed, "not everyone has a burning desire to climb some real or mythical occupational ladder. Many persons interviewed had become conditioned to their occupational status and realized the present realistic limits to any upward mobility."

For the benefit of those who would like to move up in the occupational hierarchy but are stymied, Goldstein and Horowitz propose some major changes in the system of staffing paramedical occupations. They see the present system at most hospitals consisting of four distinct occupational groupings. Nurse aides and orderlies constitute the lowest group. Licensed practical nurses are next up the line, in a group by themselves. The third group comprises registered nurses, head nurses, nurse supervisors, and nursing directors. At the top of the pyramid, in the fourth group, are the interns, residents, and chiefs of medicine.

There is little, if any, upward move-



Employment in Health Service Occupations -- 1970 to 1980



Source: Bureau of Labor Statistics

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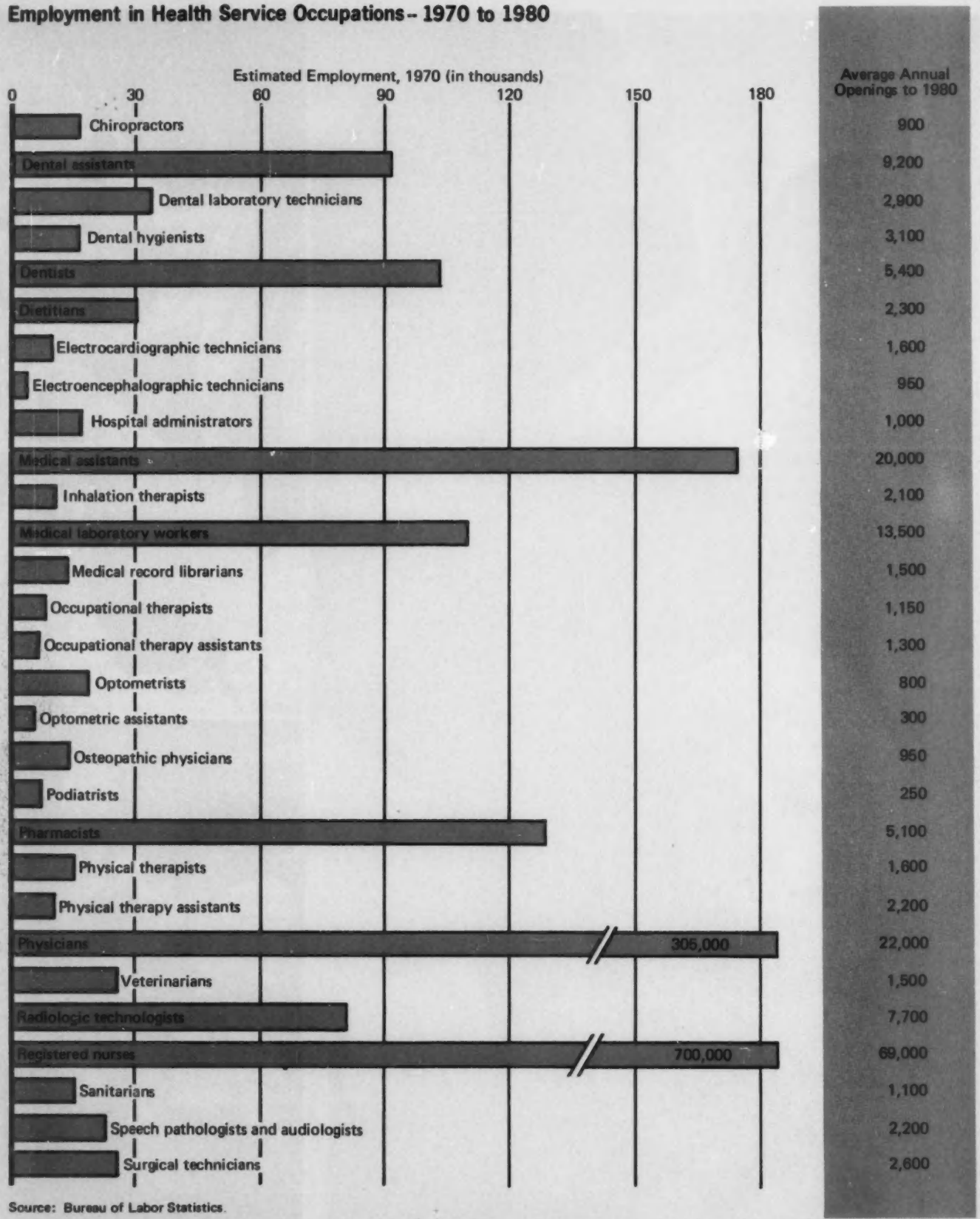
Employment in Health Service Occupations – 1970 to 1980



Source: Bureau of Labor Statistics.

ment through these ranks. Nurse aides or orderlies who want to become licensed practical nurses can't count their experience and training toward fulfilling the requirements for certification. The same situation confronts practical nurses who would like to become registered nurses, and so on up the line.

This system is inefficient and wasteful, the researchers say. In its place they propose an interlocking job structure in which education, experience, and on-the-job training counts heavily toward the credentials needed to move up. In this new paramedical structure, the position of orderly would be eliminated. Instead, the first rung on the ladder is nurse aide, then in rising order, the newly created positions of nursing assistant, medical assistant, and physicians' assistant.

To make the new structure work, a hospital would have to compile new job descriptions for each of the positions. Orderlies' duties would have to be absorbed by others, mostly nurse aides. Furthermore, the jobs must be designed to eliminate the overlapping that causes much of the inefficiency of the present system. Finally, the hospital would have to provide inservice training that encourages workers in the lower job categories to move up the ladder.

The training programs recommended by Goldstein and Horowitz for each of the occupations they propose are designed to tie together to form a logical sequence of upward mobility for those who want to take advantage of it.

Nurse aides would get a 5-week training program at the start, consisting of an hour of lecture and 6 hours of supervised work each day. Entry requirements wouldn't exclude applicants with no previous medical experience or no high school diploma. Aides would perform some nursing care and also be responsible for certain clerical tasks.

Nursing assistants would get 12 weeks of training on top of the nurse aide program or its equivalent, making a total of 17 weeks of training, most of it in supervised work situations. They would be trained to perform some of the "moderately sophisticated" tasks now handled mostly by registered and licensed practical nurses. Their duties would involve mainly personal patient care, but they also would be trained in the use of such equipment as the electrocardiogram machine and inhalation therapy equipment.

Medical assistants would take a 12-week training program in addition to completing the nursing assistant course or its equivalent. They would be under the direct control of the medical staff and assist with functions now normally performed by physicians. Drawing blood, fluid and blood replacement, obtaining fluid samples for culture, urinary catheterization, and assisting physician in biopsy and bone marrow procedure, are among the subjects listed in the researchers' sample training program for nursing assistants.

Physicians' assistants would be required to complete a 2-year training program after qualifying as medical assistants. They would be taught to perform some of the more sophisticated functions traditionally handled only by physicians. As training models, the researchers recommend the physicians' assistant programs at the University of Washington and Duke University.

Ward secretaries, licensed practical nurses, and registered nurses also would receive regular training. In the case of ward secretaries, an 8-week program is envisioned to train them to relieve nurses of some of their time-consuming administrative and clerical tasks. For their part, nurses would attend periodic inservice training programs.

Some Changes Implemented

As a result of their studies at Cambridge Hospital, the researchers made a total of 13 recommendations to the hospital's directors. Some were implemented and some were not. Among the changes that took hold are:

- The position of orderly is being phased out.
- The requirement that nurse aides be high school graduates has been dropped.
- An inservice training program has been instituted to upgrade nurse aides to nursing assistants.
- The hospital has agreed to recommend salary increases for staff members who successfuly complete inservice upgrading training programs.
- A number of paramedical employees of the hospital now attend periodic lectures, conferences, and other programs that weren't available to them before.
- Cambridge, along with other hospitals in the Boston area, is hiring graduates of Northeastern University physicians' assistant program for on-the-job training. (It was determined that the hospital couldn't afford to sponsor the entire training program on its own.)

During the course of the project, other significant changes were taking place at Cambridge, some of them unrelated to the study. Between 1968 and 1970, the hospital's bed capacity expanded almost 20 percent. There was a 38 percent increase in in-patient days and a 34 percent rise in out-patient visits. At the same time, the hospital managed to cut its operating loss from 23 percent of expenses to less than 5 percent.

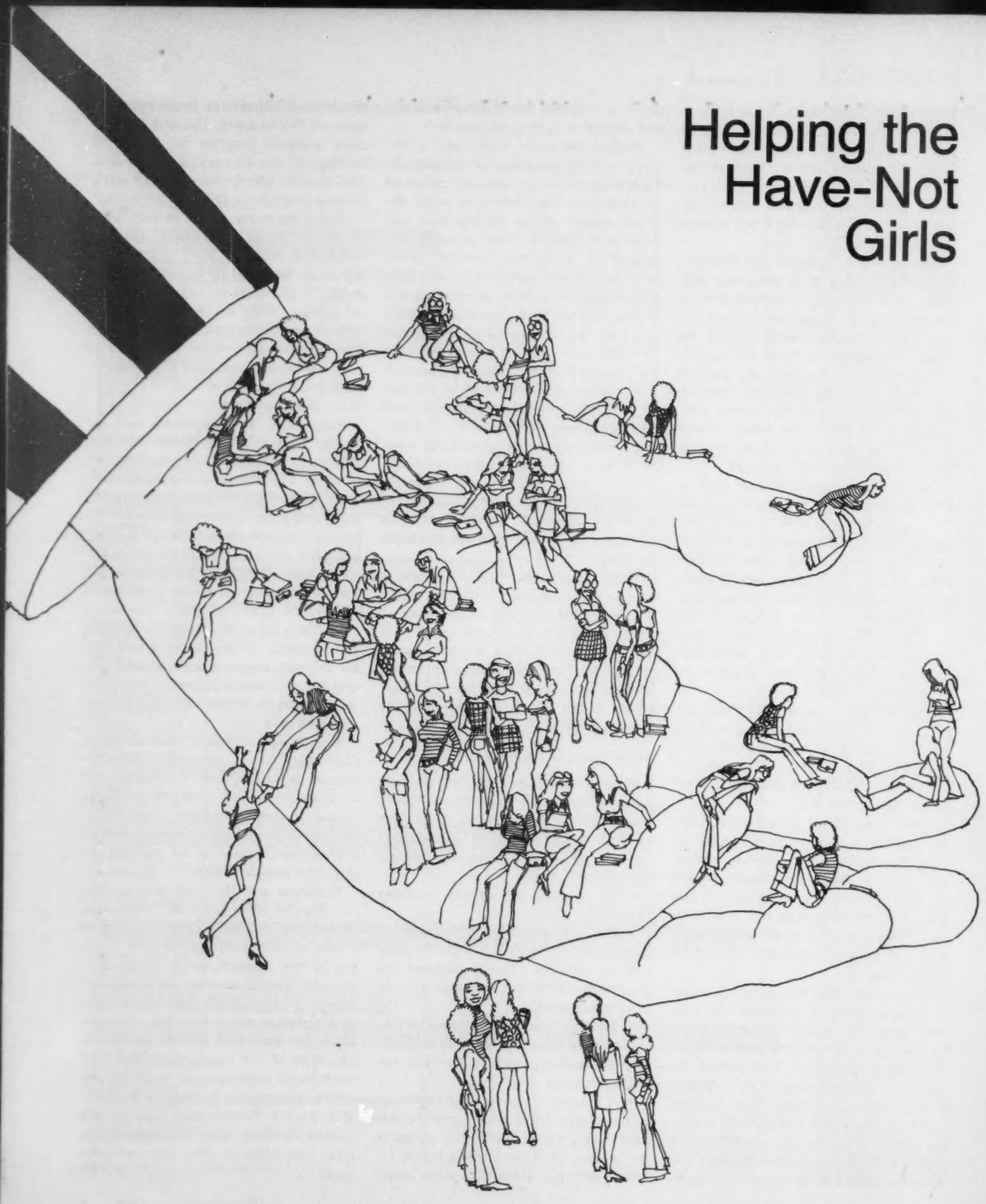
Meanwhile, the paramedical staff increased by nearly 29 percent, despite a drop in the number of orderlies from 14 to three. The difference was more than made up for by a 68 percent increase in the use of licensed practical nurses, a 71 percent jump in the number of nursing assistants, and a 40 percent rise in the hiring of ward secretaries. By contrast, the number of registered nurses on the staff grew by less than 7 percent.

In short, use of the hospital's facilities had increased and the quality of care had not declined despite a much greater reliance on paramedical personnel with little or no previous formal training, the researchers point out.

Translating successful innovation at Cambridge into a plan other hospitals can use is no easy task. Cambridge is a large municipal institution with problems unique to large municipal institutions. Will the same techniques work as well at a small private hospital, for instance, or at a rural medical center?

Goldstein and Horowitz plan to find out. They've received another Manpower Administration grant to carry out similar studies at several different types of hospitals in New England, mostly in the Boston area. They'll also study the long-range impact of changes that have taken place at Cambridge since they left. At each place, the researchers will analyze the deployment of the paramedical staff and recommend improvements based on the situation peculiar to the hospital involved. When they're finished, they hope to have models for change that most types of hospitals can adapt to their own particular needs. □

Helping the Have-Not Girls



A Former Center Director Talks About The Job Corps

Mary E. Doolittle retired last December after 7 years as director of the Los Angeles Job Corps Training Center for Women. Altogether, Miss Doolittle has spent nearly 40 of her 61 years working with young people. In the following interview, she talks about life in the Job Corps—its joys and problems, and what it takes to help disadvantaged young women gain confidence in themselves and the competence to make a living.

Q. *Miss Doolittle, you were present at the creation of the Job Corps center for women in Los Angeles, were you not?*

A. I helped write its original funding proposal. This was only a few months after passage of the Economic Opportunity Act of 1964, which gave birth to the Job Corps. I was working for the YWCA in Los Angeles and at our request the national YWCA board agreed to allow us to proceed on our own to run a center.

This was a pretty far-out project even for the YWCA, which is no stranger to controversy. After all, the YWCA was the first nationwide organization to have housing, cafeterias, night schools, and health examinations for women, and it was one of the earliest to achieve integration. However, in the mid-sixties it was not yet customary for private community agencies to accept Government funds and, in any event, opening a women's Job Corps center was a chancy thing because there was little experience with the program.

Q. *But you still went ahead with your plans?*

A. Yes. Some of us saw the YWCA as a logical program sponsor. I remember that when we arrived at the Job Corps offices in Washington with our proposal—it had only 60 pages and was held together with brads—we found that universities and industries had spent tens of thousands of dollars on elegant presentations. The Job Corps staff told us what our proposal lacked in content, and when we finished rewriting it, they said, "Girls, this is a hell of a proposal. It's got heart and guts, and you're going to get a center." And I think that the philosophy of the Los Angeles Job Corps Training Center for Women has always been much like that proposal—it's had heart and guts.

Q. *Was the going rough at first?*

A. Yes. Because Job Corps officials were anxious to get the centers open, we began operations in June 1965 before our quarters were ready. Our kitchen and dining rooms were on different floors, and our offices were just as the movers left them. Still, it was an exciting day when our first 50 young ladies entered the center.

After the opening ceremonies, a number of young ladies decided to go out and not stay for the evening party. They were horrified to learn that there were only certain nights they could leave the center. A few days after the opening, some of them located a pay telephone, called their Congressmen, and reported that they were locked in their rooms without water or other facilities. It wasn't long before our switchboard lit up like a Christmas tree.

Q. *How about your program—was it ready to roll?*

A. Yes, but we had some misconceptions about the needs of girls who come from deep in the have-not sector of our society. We expected tests to show most of them reading at about tenth grade level and ready for job training. Instead, most were closer to a second grade reading ability and their first need was basic education—reading, writing, and arithmetic. We found that before you can prepare Corpswomen for jobs, you have to start a long, long way back. You begin by helping them gain confidence, develop a good self-image, and be motivated to work. Then, you add the basic education and job training they need. All are elements in helping them to meet the middle-class expectations that they will face in getting and holding a job.

Q. *Are middle-class values difficult to teach?*

A. Yes. I don't even know if you can teach them. I think you have to experience them. Take punctuality. Sometimes the young women seem to think we are simply being mean when we take some of their privileges away because they are late for class or have come in a few minutes after midnight curfew. But to hold a job, you've got to be on time, and you must also dress and act in certain ways and not in others. Sometimes you must go to work when you don't feel good. And if you get mad at your boss, you don't sock him one. Job Corpswomen, like the rest of us, must come to grips with the kind of life they want to lead.

However, we have changed some of our rules as we've gone along. We used to have a no work, no pay rule, and made deductions from the Corpswomen's allowance when they failed to turn up for classes. Later, we decided to be more high minded and we changed this. We said, "You know, you can't finish your training if you don't go to school. But we won't make deductions for absences. It's up to you whether you go or not." I think the old rule of no work, no pay is about to be reinstituted. It speaks louder than words.

"Like other youth, they are striving for something different, trying to break boundaries, testing acceptable and unacceptable ways, and seeking their own identity."

Q. *Is learning customs and values a two-way street in the Job Corps? Does the staff learn from the enrollees?*

A. Yes, in many ways. As a simple illustration, when our center started we fixed box lunches for women going out to school. They came back in a few days and asked to have their lunches put in a sack because everyone else carried her lunch that way. The boxes were like posters—they announced the presence of the Job Corps.

Then, the young ladies found that all the women at their schools wore pants. Again, they were identified as Job Corps, and on that account we okayed coordinated pants suits. Later on, we had to decide about mini-skirts and micro-mini-skirts. I would say that as time went by our rules about dress deteriorated a bit. Another way to put it is that we rolled with the punches.

One thing we always adhered to in clothing is the wearing of shoes. To show you how firmly our rule holds, there was a day when I saw one of our young ladies coming up the street and she was carrying her shoes. Just before she got to the door of the center she stopped and put on her shoes. That way, she maintained both our standards and those of the world outside.

Q. *In other words, Corpswomen have values not unlike those of other youth?*

A. Of course. And as mores change in society, this is reflected in the center. Corpswomen, after all, are young. Like other youth, they are striving for something different, trying to break boundaries, testing acceptable and unacceptable ways, and seeking their own identity.

Q. *Are there drug problems in the center?*

A. There are some. But I think I'm being very honest when I say that as far as drugs and alcohol are concerned, there are fewer problems among Job Corpswomen than there are in schools. For one thing, we have 24-hour supervision in the center and no place to hide. And the young ladies know that pills and alcohol do not represent an acceptable life style as far as we are concerned. In more than 7 years, we had fewer than 10 girls who were really addicted. They left the center not only because we couldn't tolerate their social system, but because they could not tolerate ours. Every effort is made to see that such girls get help.

Q. *Then are you "creaming" to get your center population —taking people with the most to offer, and turning away those with deepest problems?*

A. No. Every girl who meets the poverty and age guidelines is eligible for the Job Corps. But when we talk about addiction it comes down to a question of what the Job Corps was set up to do. There are people whose health problems prevent them from participating in Job Corps activities. But we do deal with many serious health problems. Some of the young ladies who have been in our center were on hard drugs since junior high school. They licked the drug habit, they graduated, and they got good jobs. Another of our young ladies was picked up by the police a couple of times on account of drunkenness. When I talked to her about this, she said, "But,

Miss Doolittle, before I came to the Job Corps I got drunk every weekend. Now I only get drunk about once a month." That's accomplishment, and we didn't send her home.

We work with girls with all kinds of problems. Some were so badly damaged before the age of 16 that we could do nothing to help them. They were not able to accept our help. One of our young ladies had been in 12 foster homes, and you would think that when she came to Job Corps—where she had security, counseling, guidance, and concern—that she would decide this was where she wanted to be. But she ran away because long ago she had formed a pattern of running away.

Q. *Is pregnancy a reason for discharge from the Job Corps?*

A. No. A young woman can stay at the center until 7 months pregnant. She gets counseling, of course, and we try very hard not to influence her toward any one of her options. And, of course, the young woman may return to the center later.

Q. *Are Job Corpswomen allowed to keep their babies at the center?*

A. No. They have to make other arrangements, although I know that the Atlanta women's center does take in the children of residents. As a center director, I could provide family planning for a young lady and I could line up help for those who were pregnant. But what I could not cope with was the young lady who wanted a baby because she needed love and the feeling that she was important to someone. A baby is not a doll or plaything, and it entails much responsibility. Nevertheless, it is a mistake to deny the force of love and affection. As matters stand at our center, we can give the young women clothing, food, recreation, job training, and concern, but we can't meet their needs for love. If we were to have had our women's babies in the center for the women to love, then I think we would have filled a great void.

Q. *Would you describe guidance services in your center? I assume they are vital.*

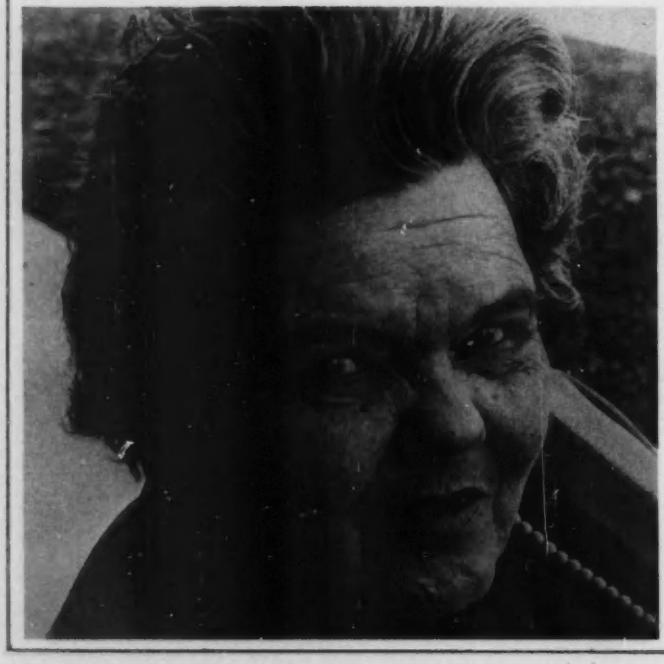
A. We give Corpswomen strong guidance support. There is one counselor on each residential floor, which is one for every 46 women. However, we don't look on guidance as just a specialized function—all staff members offer guidance. What's more, we use an interdisciplinary approach to problems. The way I see it, this works somewhat like a wheel in which all the spokes—counseling, basic education, vocational training, health services, and other program units—work together as they go in to the hub. That hub is the individual Corpswoman.

Take what happens when we have a young lady who is falling asleep in class. Maybe the class is boring, and there should be some changes made in our teaching. Maybe there are problems on her floor which keep her up at night. Maybe she's sick and needs health services. Maybe her attitude is responsible, and she needs help on that. In any event, the case is handled jointly by all program elements that are involved rather than by a counselor working alone.

You see, this is how you create the kind of therapeutic community we have. It is a place that takes in people who are weak, heals them, and makes them strong. If you had experts

"...it is a mistake to deny the force of love and affection."

"...it's like I thought it would be. But when there's joy, I didn't know there could be this much happiness."



in all phases of Job Corps working separately in their fields, you could easily tear a Corpswoman apart, disintegrate her rather than make her whole. Each would advise on what he or she knew, without having much idea of what was going on in other areas of the Corpswoman's life.

Q. *Do you use the services of a psychiatrist?*

A. Yes, but he spends 98 percent of his time with the staff, helping us to help Corpswomen.

Q. *When young women come into the Job Corps, what do you do first?*

A. The first 10 days are spent in orientation. Each newcomer has one of our staff assigned to stay with her all during this period, which helps her feel she has someone she can depend on among so many strangers. During this period, concerns and problems are brought out into the open and discussed. Also, there are physical examinations and testing to determine basic education needs. We tell the young ladies about the kinds of training available and what we expect of them. If we can get them to accept the Job Corps culture, they are well on their way. They must recognize that they must give up something to get something—for a year or a year and a half they must be willing to trade their freedom to come and go for training.

Q. *Then do you get into basic education?*

A. Yes, there is intensive basic ed for all Corpswomen for the first 8 to 10 weeks. Then, if inadequacies still exist, these studies continue in combination with work. In addition to teaching math, reading, and social studies during basic ed, we have intensive exploration of the world of work. Young ladies come to us with the idea that there are only a few things they want to do. Most of them want to take cosmetology, nursing, or secretarial studies—all high achiever programs. But they really don't have much idea what people in these occupations do. They think secretaries sit at some administrator's front desk, do his typing, and answer his phone. To show them that the work isn't all glamorous, we take them to visit a large insurance company where there are 150 persons sitting desk to desk and typing forms. And we ask the Corpswomen if they still want to do that.

Sometimes we line up a temporary job as a general helper in a hospital or clinic for those who want to be nurses. Then they can see that giving baths, emptying bedpans, and that sort of thing is part of nursing. The question is, do they still want to become a nurse?

These young women come to us with great dreams, but we have no magic wand to make those dreams come true. We will have failed them if we don't help them make a realistic vocational choice. A young lady with only a third grade education will find it terribly difficult to make it to licensed practical nurse or secretary while she is in the Job Corps. So we try to help her choose something she can do. We offer about 35 different kinds of training. If she doesn't want to do one particular kind of work, she doesn't have to. But she does have to make up her mind about what she can do.

A number of times some young lady has come in tears to

talk to me because she wanted to be one thing and not another. I explained that nearly everyone on the staff, including me, was unable to complete his or her education in a single stretch. We had to work before we could get more schooling. Graduating and getting a job is the first rung on the ladder. If what you are doing doesn't satisfy you, I told them, don't get disheartened. When you finish working every day you've got 16 hours left in that day—what are you going to do with them? How about getting to the next rung?

Q. *Where does the center do job training?*

A. Most of the young ladies are trained in the center, where we teach business studies and the academic side of nursing studies. Students training to be nurse assistants or licensed vocational nurses (in some States, it is called licensed practical nurse) also spend 3 days a week working on hospital floors under the supervision of center personnel. While training in business and nursing are traditional for women—and there will be people who fault it for that—it's a big stretch from roaming the streets and being on welfare to becoming a typist or licensed vocational nurse.

In addition, we have training all over Los Angeles. We have students in junior college, in a trade technical school, in adult education classes—all this is public education—and in a private cosmetology school. Wherever they go, they have to acquire a trade. They can't take a liberal arts program at a junior college.

In adult education we have Corpswomen learning power sewing, commercial flower arranging, commercial cooking, and a number of other trades. At times we have young ladies majoring in accounting or computer programing at the trade technical school. Just now there are some young ladies studying at the junior college to become library or nursery school aides. We also offer opportunities to train as a physiotherapy or anesthesiology aide.

Q. *Do your Corpswomen succeed in getting jobs when they graduate?*

A. As far as we know, about 3 out of 4 do. And we think this is wonderful. You know, when we wrote our center proposal in 1965, we thought if we could really help 1 out of 10 we would be doing great. But I should also point out that there may be many others who have jobs. Until recently, there was not much followup. Followup gets to be difficult and expensive. The fact that we trained these young ladies made them mobile. They don't have to go back to where they came from. They're strong. They're eager. They're getting out of their ghetto or barrio or whatever the isolation they came from is called. And this, in turn, makes them hard to locate so that we can tell how well they're doing.

Q. *What does it cost to train a girl in the Job Corps? Is this expensive as manpower programs go?*

A. I'm asked that question many times. I can give you two answers and tell you that it costs $5,200 a year per girl, or I can tell you that it doesn't cost a red cent. Let's start with the first answer, $5,200. I've had people say to me, "I can send my girl to Stanford for that," and I say to them, "If Stanford will take her, that's where she should be." But you've got to remember, nobody else wants and will take the young ladies in our center to do anything with them. They are have-not girls. They are a lost generation.

How many years would it take a family on welfare to eat up $5,200 and what do you end up with? Many of these young ladies have been on welfare, their parents have been on welfare, and their parents before them. Or you might take a look at what it costs to keep a young lady in a detention home or prison. It adds up to much more. If a young lady works she becomes a taxpayer. I have not worked in a give-away program, and I don't want to be part of one. If the Job Corps cannot produce workers, it should not be in existence. But I know it works, and I know its costs are an investment in human beings.

Q. *Is it hard for girls to accept living in a center rather than in a home?*

A. I suspect that most young women who come to the Job Corps come to get away from home. They are loathe to talk about what happened before they came. Their lives seem to have begun when they came to the Job Corps. It's our job to say you can't run away from the past. Instead, you must face your problems and then go on from there.

We are aware that it is hard for them to change their lifestyle and to begin meeting our expectations. And we make allowances. For example, we don't believe in keeping at a Corpswoman all the time, picking at her about every little thing. We concentrate on things that are important. Our psychiatrist says a young lady may need to leave her bed unmade some days—it shows everyone how she feels. Or she may need to yell at someone so that she gets her feelings out. We do try to keep the center a place where the young ladies can be at home. That's why we don't allow visitors after the working day ends at 4:00 p.m., or on Saturdays and Sundays. If you have to conform to rules all day long, where can you be yourself?

Q. *Looking back on your career, what do you think were its highlights?*

A. The most important thing, I suppose, is that I found my destiny in working with people. I've had three careers that were people-oriented, and I loved every one of them. My first career was as a music teacher, and I did all the extracurricular activities you do when you're a music teacher—putting on operettas, working with student bands and orchestras, and teaching youngsters to play musical instruments. Then, for a good many years, I worked for the YWCA and was involved in social work activities.

But I have to say that the most exciting thing I ever have done was to be a Job Corps director. People ask me, "Is it like you thought it would be? After all, it was different than school teaching." And I really have to answer: "Yes, it's like I thought it would be. But when there's joy, I didn't know there could be this much happiness. When there is tragedy and sorrow, I didn't know there could be this much tragedy and sorrow. And when there is accomplishment, I didn't know there could be so much joy in accomplishment." □

News & Notes

Disadvantaged white males aged 19 to 34 accounted for more than 75 percent of all participants in State-administered on-the-job training programs funded by the Manpower Administration in fiscal year 1972. A survey of characteristics of more than 47,000 participants in the Jobs Optional Program (JOPS) also showed that half of all enrollees came from families making less than $3,000 the preceding year; about 20 percent of the participants were black and 20 percent were Spanish-surnamed; nearly half were high school graduates; and 11 percent were handicapped.

* * *

Jeno's, Inc., a snack food processing firm, has been given the 1972 Employer of the Year Award of the President's Committee on Employment of the Handicapped. In presenting the award, Committee Chairman Harold Russell pointed out that more than half of Jeno's 1,000 employees are physically or mentally handicapped or otherwise disadvantaged. Russell said they work at all levels of the company's operation and receive the same pay, fringe benefits, and advancement opportunities as other workers.

* * *

Of more than 700 men who responded to an ad in "Playboy" seeking candidates for the priesthood, 30 have been accepted for the Order of the Most Holy Trinity. Father Joseph of Baltimore, a member of that Order, placed the ad.

* * *

The poverty income guidelines used to help determine eligibility for certain manpower training and job placement programs has been increased by about $193. For program eligibility purposes, a nonfarm family of four living in the continental United States now is considered poor if it is on welfare or its annual net income does not exceed $4,200. A farm family of four is considered poor if its income is not more than $3,575. Nonfarm income limits under the new guidelines range from $2,100 for one person to $6,200 for a family of seven. For nonfarm families of more than seven, $650 is added for each additional person.

The city of Decatur, Ill., hired 19-year-old Becky McFadden under the Emergency Employment Act to put tickets on illegally parked cars. And that is just what she did to the automobile of her boss, Jack W. Loftus, acting city manager. Loftus praised Miss McFadden for doing her job and said he hoped other meter maids would follow her example.

* * *

Public service announcements in Spanish telling veterans that they have a legal right to the jobs they left behind to enter military service have been sent by the U.S. Department of Labor to more than 300 Spanish-language radio stations across the country. Among the notable Spanish-speaking people contributing their time and effort to these recordings were show business personalities Linda Cristal, Fernando Lamas, and Alejandro Rey, and former pro football player Danny Villanueva.

* * *

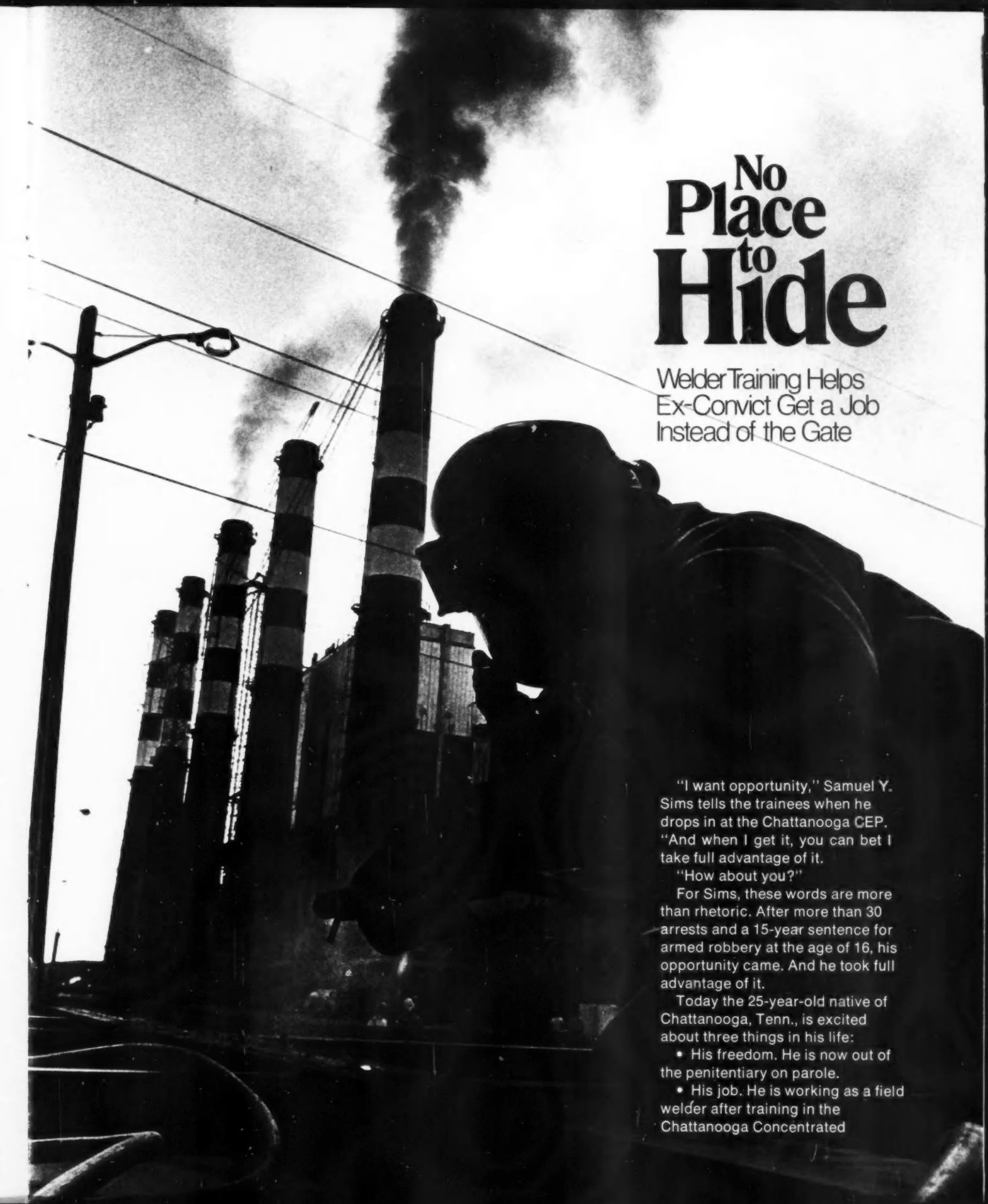
Three student nurses have been named to the National Advisory Council on Nurse Training. A 1971 law authorized an increase from 16 to 19 in Council membership to allow for the expression of student views. Composed of people knowledgeable in health, education, and community affairs, the Council advises the National Institutes of Health's Division of Nursing on administration of grant programs for schools and nursing students.

* * *

Four of 10 women aged 14 and over were in the U.S. labor force in 1970, compared with 1 in 4 in 1940, according to the Census Bureau.

* * *

Men and women completing training programs funded by the Manpower Administration show a significant increase in earning power. A survey shows average gains of 11 percent for men and 15 percent for women over what they earned before taking job training.



No Place to Hide

Welder Training Helps Ex-Convict Get a Job Instead of the Gate

"I want opportunity," Samuel Y. Sims tells the trainees when he drops in at the Chattanooga CEP. "And when I get it, you can bet I take full advantage of it.

"How about you?"

For Sims, these words are more than rhetoric. After more than 30 arrests and a 15-year sentence for armed robbery at the age of 16, his opportunity came. And he took full advantage of it.

Today the 25-year-old native of Chattanooga, Tenn., is excited about three things in his life:

- His freedom. He is now out of the penitentiary on parole.
- His job. He is working as a field welder after training in the Chattanooga Concentrated

No Place to Hide *continued*

'You may try to hide behind a corner while training, but you can't do that on a job. You must produce or get out. If you jive a lot, the gate is waiting. I don't want that gate.'

Employment Program (CEP), funded by the U.S. Department of Labor's Manpower Administration.

• His work with youngsters in a police boys' club. By teaching them boxing and other sports, he feels he is giving them something he did not have at their age.

The changes in Sims' life in recent months have been great, "I don't feel like taking anything that belongs to other people anymore," he says. "Now I can get good jobs, because of CEP, and I can work the way other people do. I can do my own thing." Previously, his "own thing" was quite different.

His first problem with the police was when he was 6 years old. He and a friend entered a barn loft to catch pigeons. Later, when a clock was missed from the barn, the boys were suspected and confined at a juvenile home until an adult who had stolen the clock learned about this and confessed.

"After being locked up, I found it was a way to get attention," Sims says. "When a police officer comes to pick you up, other kids look at you and it makes you feel big." He started stealing, taking money from juke boxes and cigarette

machines at first and then working with an accomplice to rob cash registers.

"Finally," Sims says, "I got to my main event—armed robbery. I held up a service station in Chattanooga."

Altogether, Sims served nearly 2 years for burglary at the Pikeville, Tenn., State Vocational Training School and almost 8 years of a 15-year sentence for armed robbery at the Tennessee State Penitentiary.

While in prison, he acquired a few skills. He learned to read by finishing the ninth grade four times —that was as high as the studies went, and he repeated them to learn more and to lift his grades. He took a professional cooking course. And he learned to box. "I had to get tough because I was only about 16 and I was in with tough people," he explains. At 23, the 6-foot-1-inch, 205-pounder was heavyweight champion of the prison.

Paroled last April, Sims worked briefly at a junkyard. Through his brother, he learned of the Chattanooga CEP, where he started with 2 weeks of intensive motivational training which stressed good work attitudes and the realities involved in holding a job. Next, CEP paid for his training as a plate and pipe welder in the Manpower Administration's Training and Technology (TAT) project at the U.S. Atomic Energy Commission plant in Oak Ridge, Tenn. Sims completed the 6-month course in 13 weeks.

Since October 1971, he has been employed by the Daniels Construction Company in Belmont, N.C., and is currently making $206 for a 40-hour week. Because he puts in a lot of overtime, his paycheck often is much higher. Recently, he worked an 82-hour week and took home more than $500.

Sims still visits the Chattanooga CEP whenever he can. During these visits, he tells enrollees—all of them disadvantaged persons trying to make good in the world of work —some of the lessons he has learned:

"You may try to hide behind a corner while training," he cautions them, "but you can't do that on a job. You must produce or get out. If you jive a lot, the gate is waiting. I don't want that gate." □

PROPRIETARY SCHOOLS: how do they measure up?

by Timothy Larkin

Study Finds Job Training Compares Favorably With That Offered by Public Institutions

If the seventh son of a seventh son is synonymous with personal good fortune—as well as with general demographic disaster—the stepchild's stepchild can serve as an apt symbol of neglect. Certainly, in education, by almost any measure of public regard, vocational or occupational training has been society's stepchild. The National Advisory Council of Vocational Education well expressed this stepchild status when it defined vocational education as something "designed for somebody else's children."

Although most of the measures that signify national neglect of vocational education deal with public and nonprofit schools, another area of vocational education is accorded even less attention. This—the stepchild's stepchild—is vocational education provided by proprietary or profit-oriented schools. This neglect can be accounted for neither by the present nor past contributions of proprietary schools to the national store of vocational skills.

Garfield Saw 'Capital Defect'

For example, when public and private colleges and universities largely ignored the training needs of an increasingly business-based society, proprietary schools appeared and provided practical, rapid training. As far back as 1897 there were 71,000 students enrolled in proprietary business schools, compared with but 5,800 in commercial courses in universities and colleges. This discrepancy led President James A. Garfield to observe that, "The business colleges which this country has originated are a protest against that capital defect in our schools and colleges which consists in their refusal to give a training for business life."

Since 1827, when Benjamin Franklin Foster opened the doors of the first American proprietary business school—Foster's Commercial School—private vocational education has exhibited lusty growth. Today, there are some 5,000 nonpublic vocational postsecondary schools alone, including about 1,500 independent business schools. Since an estimated half a million students are enrolled in these business schools, compared with a total of 250,000 taking business curricula in all our colleges and junior colleges, it is evident that proprietary schools are still responding to some degree of "capital defect" in the regular educational system.

Despite evidence of continued and growing vigor, little is known of the strengths and weaknesses of the proprietary schools in meeting the vocational training needs of our society. There is a particular scarcity of objective information on a number of basic questions such as: How do proprietary schools compare with nonproprietary schools? Who goes to proprietary schools? What are they seeking, and what do they get? Who gains the most from training, proprietary or nonproprietary graduates? How do the more costly proprietary schools compete with the less costly nonproprietary schools?

These and other important questions are examined in *A Comparative Study of Proprietary and Non-Proprietary Vocational Training Programs*, a report done by the American Institutes for Research in the Behavioral Sciences under contract with the U.S. Office of Education.

This recently published study [1] is based on a survey in four major cities (Atlanta, Chicago, San Francisco, and Rochester, N.Y.) of both types of vocational schools offering courses for men and women in fields expected to absorb growing numbers of new workers: Office, computer, health, and technical occupations. The survey of the schools was supplemented by interviews with students and alumni.

In assessing the findings of this study, one caveat is necessary concerning the sample surveyed. No data were collected from 37 proprietary schools that had gone out of business during a 9-month period (a failure rate of 25 percent), and 32 additional proprietary and two nonproprietary schools in the four cities refused to participate. Thus, as the study points out, "Schools which survive and participate may tend to have a greater success to demonstrate, and less to hide, than those which go out of business or refuse to participate." The fact that there is no basis for comparing these 71 schools of both types with the 65 that did participate must be kept in mind when evaluating the findings of the study.

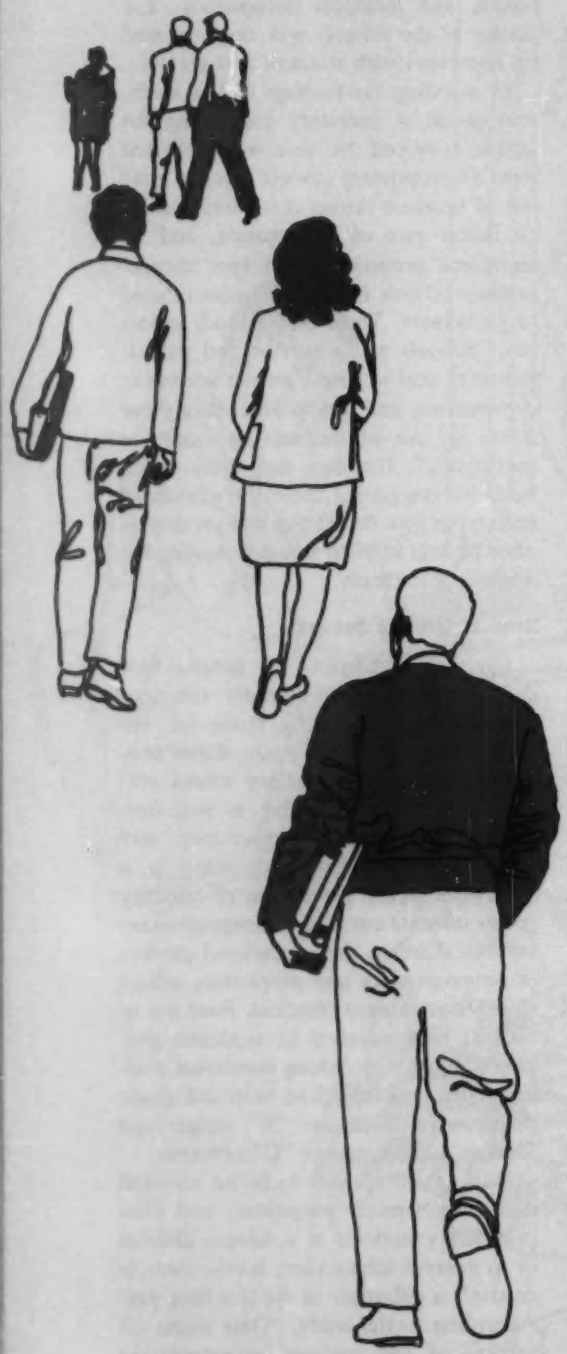
Similar Groups Served

Given this feature of the sample, how do proprietary schools compare with nonproprietary schools? In terms of the people they serve, the study shows proprietary and nonproprietary school students to be quite similar in sex, age, education, prior work experience, and family background, though there is a somewhat higher percentage of minority group students enrolled in nonproprietary schools. Further, the educational profiles of nonproprietary and proprietary school students are almost identical. Four out of 10 had been enrolled in academic programs before undertaking vocational studies, more than half had achieved grade point averages in the "B" range, and another 35 percent had "C" averages.

While there appears to be no essential difference between proprietary and nonproprietary students in academic abilities or in general achievement levels, there is certainly a difference in the fees they pay. According to the study, "Only about 15 percent of the students in proprietary

Timothy Larkin is a member of the Manpower Administration information staff.

[1] The full two-volume study is available from the Educational Resources Information Center, Document Reproduction Service, Post Office Drawer Zero, Bethesda, Md. 20014, for $6.58 per volume for a paper copy and 65 cents per volume for microfiche (specify accession numbers E.D. 067523 for Volume I and 067524 for Volume II). Please enclose payment with order.



schools report costs of $1,000 or less, while more than 75 percent of the students in nonproprietary schools report costs within this range and almost half report costs under $200. Over half the proprietary school students report costs of $2,000 or more, but fewer than 5 percent of the nonproprietary school students report costs this high." This comparison becomes even more marked when private nonprofit vocational schools are left out of the comparison.

If the same type of student is attracted to the proprietary school, how—given the higher costs—do such schools compete? The answer is that, by and large, proprietary schools do not compete with, but rather complement, nonproprietary schools. While both types of schools offer courses designed for employment in the same four general occupations, the courses themselves lead students along different paths to the same goal.

Job Placement Stressed

Proprietary schools concentrate on training for a few specific jobs rather than on providing a variety of courses. They offer short courses with frequent starting points that operate day and night throughout the year, and emphasize preparing students to be job ready immediately upon graduation and job placement services.

The profit motive produces a strong incentive among proprietary schools to respond to alterations in the labor market and changes in industrial requirements. While the need to make a profit can produce such negative practices as reluctance to abandon outmoded equipment in the computer training programs, the study finds the overall impact of the profit motive on the quality and potential effectiveness of these schools to be be a positive one. Since tuition is their sole source of income, proprietary schools must attract students to survive. And to attract students they must make a convincing case that the school's courses will enable graduates to find good jobs related to the training.

Thus, proprietary schools maintain constant contact with potential employers of graduates, evaluate manpower reports and government projections, and pursue vigorous placement programs, the study says. As a result, many proprietary schools change course requirements extensively to assure that their students are realistically prepared for the needs of the marketplace.

Gaining optimum cost-effectiveness is a vital need for proprietary schools, and those that fail to do so cannot survive. This too can favorably affect the learning climate, the study points out. For example, teachers in proprietary schools tend not to be tenured, and they are evaluated purely on the basis of teaching ability. Such schools are also quick to employ innovative teaching methods.

Given this emphasis on cost-effectiveness, how do the facilities of the proprietary schools compare with those of nonproprietary schools? As might be expected, proprietary schools tend to deemphasize facilities and services that do not directly contribute to the goal of vocational training, while nonproprietary schools provide facilities, services, and courses in line with their broader range of learning goals, goals that encompass both vocational and academic areas.

Within this context the study concluded that "educational facilities appear adequate in nearly all schools." Indeed, the proprietary schools exhibited certain advantages such as a more favorable teacher-student ratio and a higher proportion of laboratory to classroom time. Nonproprietary schools excelled in such areas as remedial academic training and quality and quantity of library services.

While the schools studied differed in the scope of their facilities and methods of teaching, the teaching staffs were re-

markably similar. The ratio of full-time to part-time teachers, for instance, was the same in both types of schools, though the teachers in nonproprietary schools were older and possessed a higher level of education. Despite these differences, the teaching experience of the two groups was comparable (see chart 1).

The study concludes that "both proprietary and nonproprietary schools typically employ teachers who are well qualified in terms of education, prior teaching, and other work experience."

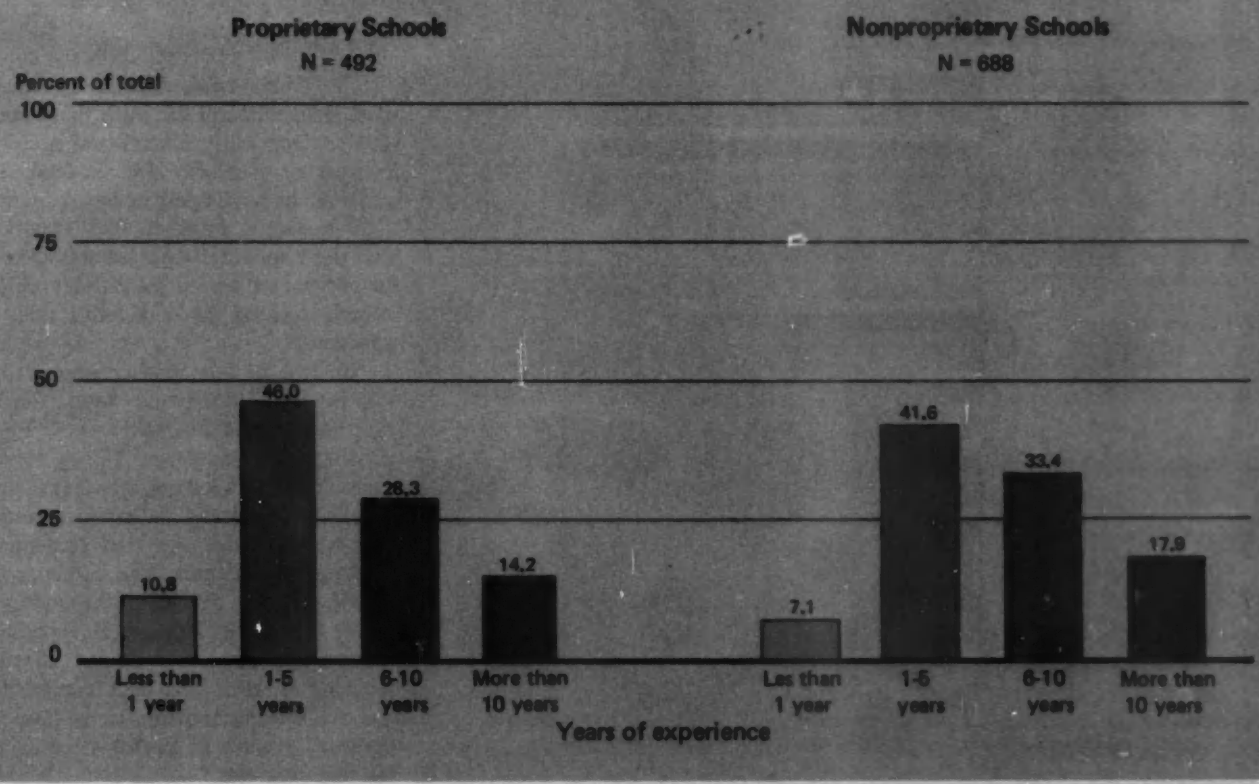
If each type of school attracts essentially the same kind of students, if each employs similar staffs and comparable facilities, a key question is how effective is each type of school in achieving its goals and satisfying the expectations of students. Do the students secure an adequate return for their investment? And if so, which type of school offers the greater benefit?

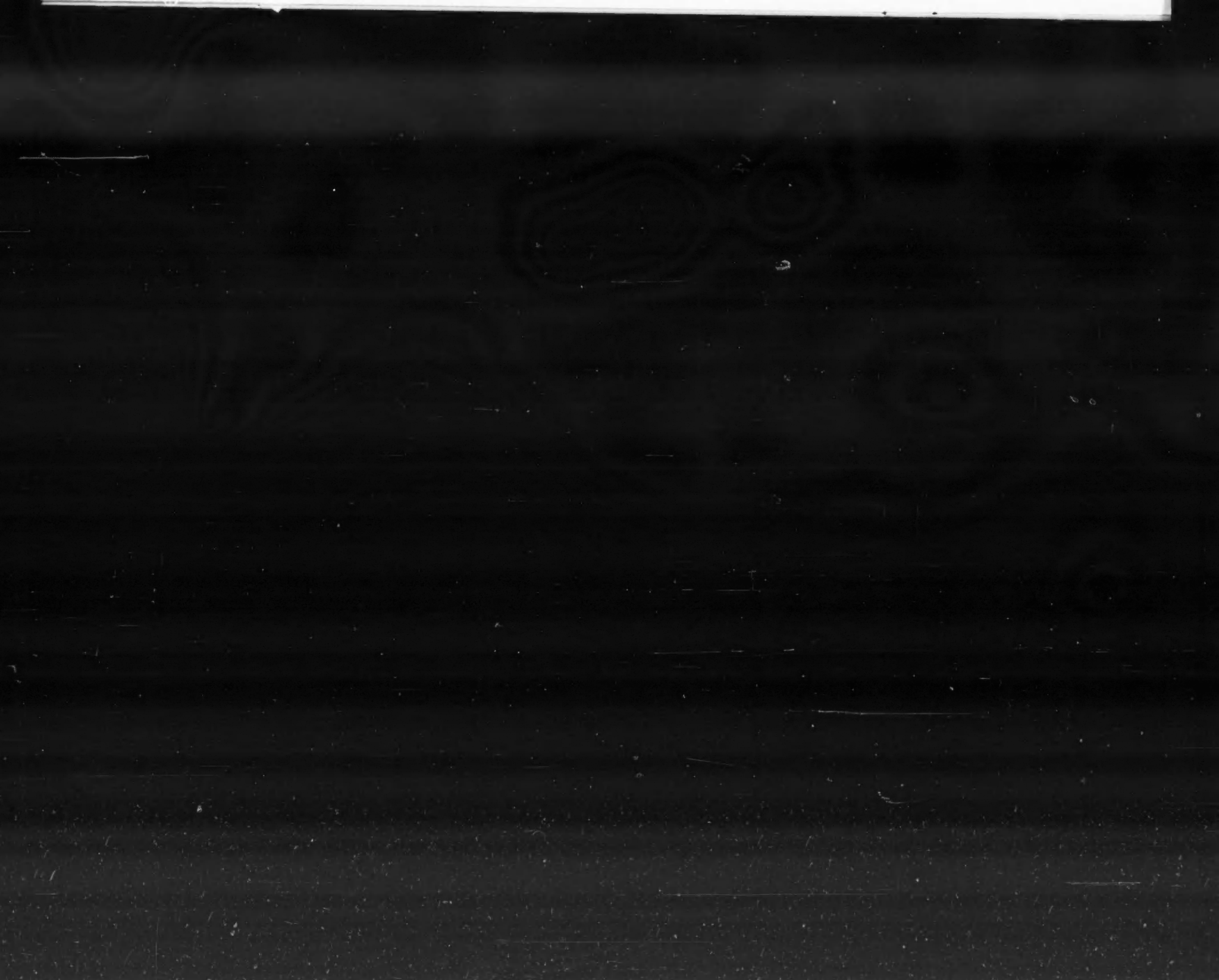
The study includes an analysis for each type of school of the costs students pay compared with the benefits they receive. This benefit-cost analysis, supplemented by surveys of student and alumni attitudes, reveals that although differences do exist, both types of schools are generally effective in producing graduates with marketable skills.

The study says that though the four occupational areas chosen differ markedly in benefit-cost ratios and in type of programs offered, students "find the training in line with their practical, job-oriented aims, and about three-fourths of those who seek jobs after training do find jobs

Chart 1

Prior Teaching Experience of Teachers





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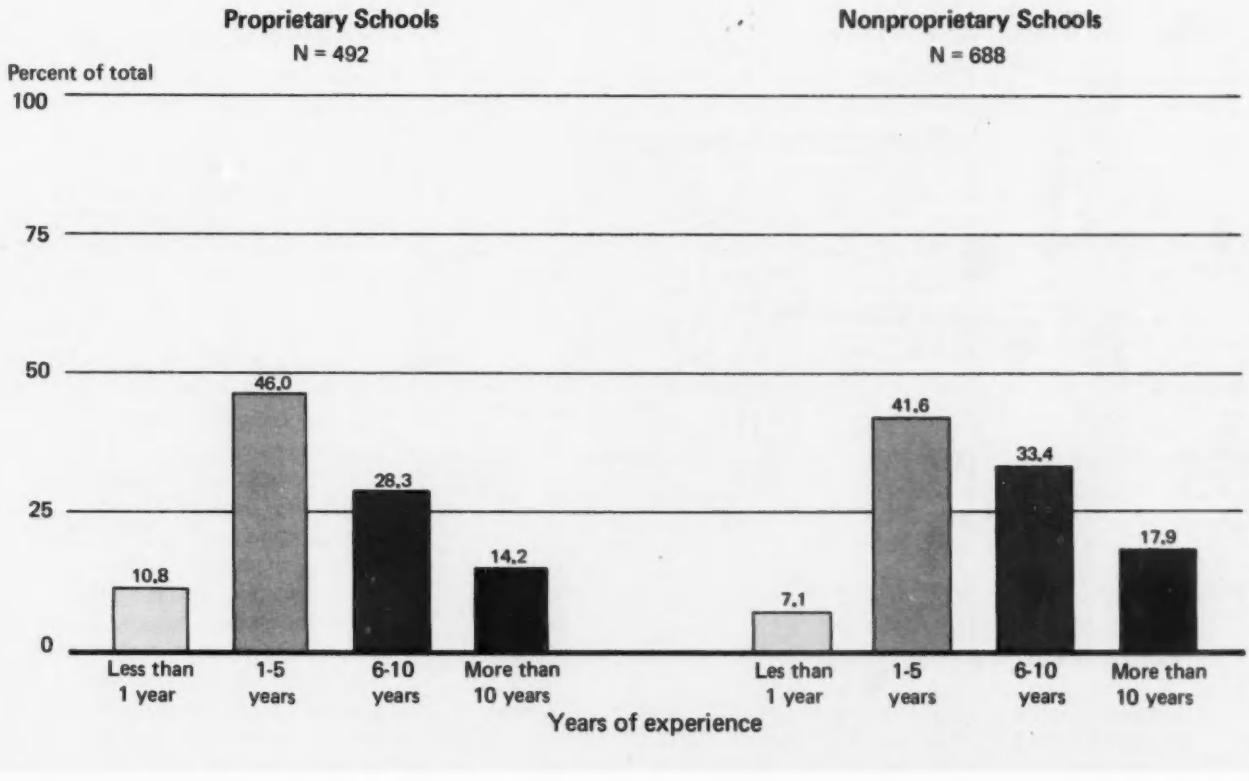


related to their training (see chart 2). The salaries earned by graduates are typically not as high as current students expect after they graduate, but this may reflect current market conditions more than any aspect of the training programs."

Graduates' salaries are "high enough to establish that training is cost-beneficial in all occupational areas for both proprietary and nonproprietary schools," the study notes, "with the one exception of proprietary computer alumni" who faced an adverse job market for their skills.

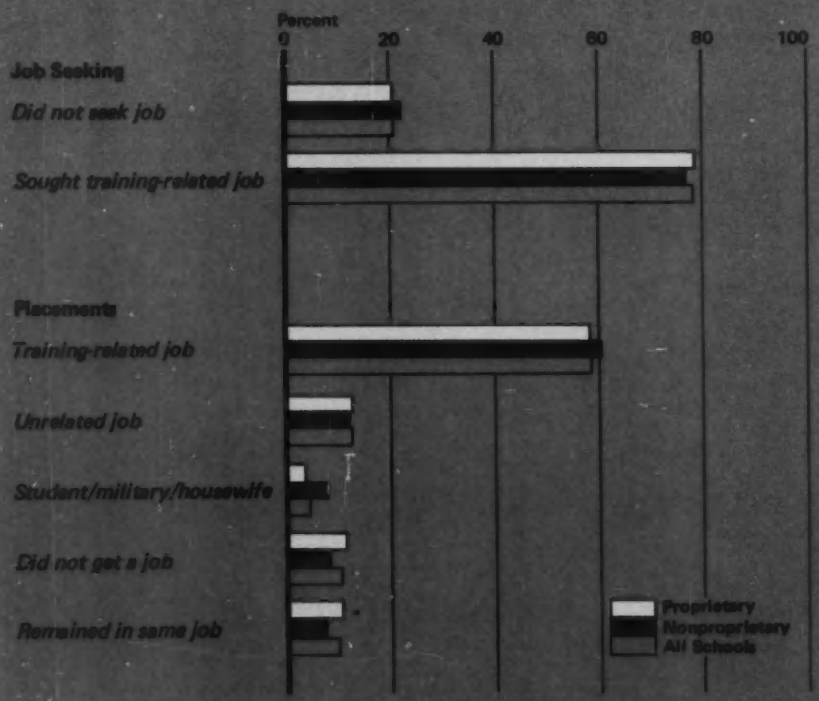
"The estimated rate of return on the training investment for all graduates combined is 29 percent, meaning that students would have to earn 29 percent annual interest on the same amount of money invested in training in order for lifetime monetary benefits to match the increased salary gained as a result of training," the study points out.

Although the training is cost-beneficial to graduates of both types of schools, proprietary school alumni and students have a greater tendency to criticize course content as ineffective or inappropriate, and nonproprietary school graduates realize greater economic gains from the training than the graduates of proprietary schools. However, much of the difference in relative gain between graduates of the two types of schools is accounted for by the fact that proprietary students generally earned more before training, giving them less of a gross gain in income than that secured by nonproprietary graduates. When this factor is taken into account, the job success of graduates is nearly equivalent for the two types of schools.

One interesting finding is that accredited and chain proprietary schools appear to be no more effective in placing graduates than unaccredited and nonchain schools. Thus, the study provides no basis for public policies that favor one type of proprietary school over another.

Chart 2

Job Status of Alumni



Note: Percentages do not total 100 because of rounding and because a small percentage of alumni who did not provide relevant information are not included in the table.

Evaluate Results, Study Urges

This finding bears directly on a major recommendation of the study that evaluation of proprietary schools and decisions concerning eligibility for Federal and other public funding not be based on input criteria such as facilities, staff, materials, and the presence of licenses and accreditation, but rather on measurable output criteria such as the marketable skills of graduates.

"To rely on input measures for evaluation of schools," the study says, "implies that we know fairly well which inputs produce better outcomes. This is not the case. Too little is known about techniques of effective learning to justify requiring certain inputs, be they staff credentials, facilities, or materials. The output is the payoff and that should be the main criterion for public support. If vocational trainers are free to seek out effective methods of training in open competition and are held accountable for results, the eventual result will probably be better training programs." □

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Chart 2

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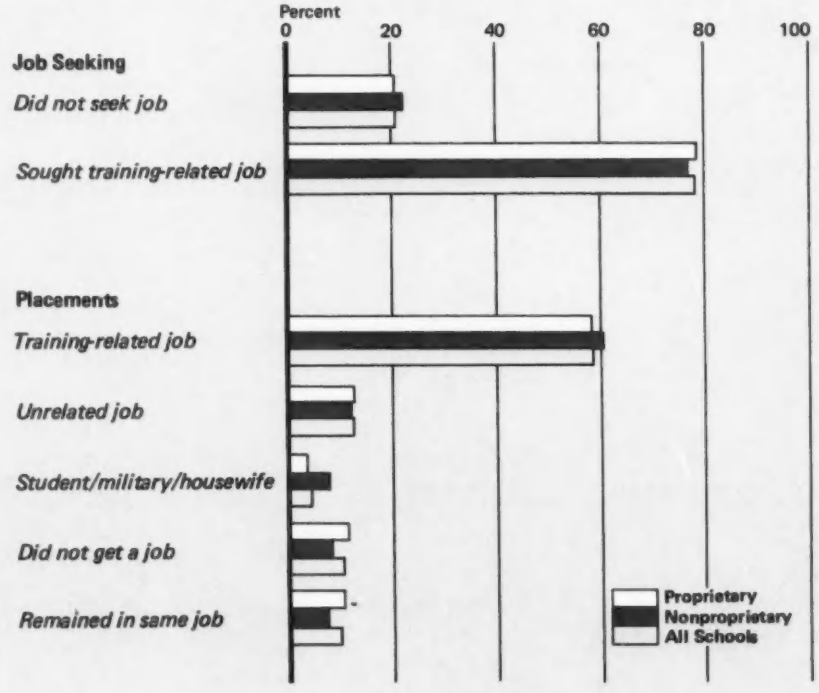

Note: Percentages do not total 100 because of rounding and because a small percentage of alumni who did not provide relevant information are not included in the table.

Evaluate Results, Study Urges

This finding bears directly on a major recommendation of the study that evaluation of proprietary schools and decisions concerning eligibility for Federal and other public funding not be based on input criteria such as facilities, staff, materials, and the presence of licenses and accreditation, but rather on measurable output criteria such as the marketable skills of graduates.

"To rely on input measures for evaluation of schools," the study says, "implies that we know fairly well which inputs produce better outcomes. This is not the case. Too little is known about techniques of effective learning to justify requiring certain inputs, be they staff credentials, facilities, or materials. The output is the payoff and that should be the main criterion for public support. If vocational trainers are free to seek out effective methods of training in open competition and are held accountable for results, the eventual result will probably be better training programs." □

Rotarians 'Hire the Vet'

Project Launched in Delaware Spreads Across the Nation

by Steve Hulsey

The situation in Delaware in early 1972 was a familiar one across the Nation: Vietnam-era veterans, returning home in great numbers, were finding it extremely difficult to get jobs. Their unemployment rate was substantially higher than that for nonveterans of the same age.

Edward T. Campbell, veterans employment representative for Delaware's State Department of Labor, and Ray Hecht, the National Alliance of Businessmen's director for the Wilmington metropolitan area, concluded that the problem was more one of communication than lack of suitable jobs. Businessmen with jobs to offer weren't getting the message.

Together, Hecht and Campbell visited several service organizations in Delaware to plead for increased hiring of veterans by the organizations' members. Few significant results were realized, however, until the veterans' unemployment plight was brought to the attention of Robert Wood, then Governor of Rotary International District 763, by Rotary members who had become enthusiastic about hiring vets.

Wood, Hecht, and Campbell created a program for promoting the hiring of veterans by Rotary members that has since spread to more than 800 Rotary clubs across the country. The expanding Rotary project is one part of the overall Vietnam

Steve Hulsey is a freelance writer.

Veteran Job Program, launched in 1971 at the direction of President Nixon, which has helped bring about a sharp reduction in unemployment among young ex-servicemen. In December 1971 the jobless rate for Vietnam-era veterans aged 20 to 29 was 8.4 percent, compared with 7.7 percent for nonveterans in the same age group. A year later—thanks to an expanding economy and the Veteran Job Program—the rate for veterans was 5.5 percent, a full percentage point below the 6.5 rate for nonveterans.

Hire the Vet, the program proposed by Wood, Hecht, and Campbell, was unveiled in February 1972 at the first annual conference of newly created Rotary District 763. The district covers 14 counties in the Delmarva Peninsula, which includes Delaware, and parts of Maryland and Virginia. Like most Rotarians, the majority of the district's 1,800 members in 30 clubs are businessmen interested in social and community action. Representing many varied businesses, they range from presidents of large corporations to individuals employing only two or three people. Most importantly, they usually are decisionmakers within their companies and have the authority to hire employees without going through a lot of red tape.

Pentagon estimates placed the number of Vietnam-era veterans who would return to their homes on the Delmarva Peninsula during the next 12 months at about 4,000. The Rotarians adopted as a district-wide project the hiring of 10 percent, or 400, of these veterans in this period.

"Veterans were coming home to very unfavorable employment conditions and couldn't find work," said Wood. "If employers would give them preference for jobs, we could make a dent in their unemployment situation."

Employers soon found they had been overlooking a vast pool of talented workers in their own communities. Though many ex-GI's required training for particular jobs, the majority had qualifications that employers look for in a prospective worker.

"The veteran has developed discipline, he has been exposed to experiences outside his hometown, and he has learned to take care of himself," said Alan C. Reed, NAB vice president for veterans' affairs. "These are things that employers look for. The veteran knows more about what he wants to do, and he has a sense of maturity and responsibility."

Dental Apprentice Hired

Jim Dodd, owner of Dodd Dental Laboratories, Inc., in Wilmington, was looking for workers with these qualities to fill two vacancies in his establishment, where he employs 24 people. A member of the Brandywine Rotary Club, Dodd became aware of the veterans' high unemployment rate through the Hire the Vet program and began giving veterans hiring preference.

Dodd hired a Vietnam-era veteran under the Veterans Administration's on-the-job training program to train as a crown and bridge dental technician apprentice. Under this program, a VA training allowance of at least $160 a month is paid to the veteran while he is training for a skilled job. As the apprentice's salary increases the allowance decreases. To fill his other vacancy, Dodd hired a disabled World War II veteran, an experienced ceramist, at $330 a week.

Another employer who found a Vietnam-era veteran ideal for his needs is John A. Moffit, a partner in a two-man public accounting firm in Georgetown, Del. Moffitt learned of the Hire the Vet program at the Georgetown Rotary Club's weekly meeting and discovered that he didn't need to put off hiring help if he made use of a Manpower Administration training program.

"We were overloaded with detail work," he said of his business situation at the time. "It is economically not feasible —in fact, it is physically impossible—for us to perform all the detail work."

Since seasonal income tax work wouldn't be upon them for some time, Moffitt and his partner could not afford to hire a third person and train him before the tax return season began. Yet, when tax time arrived, it would be too late to train someone.

"We had toyed with the idea of hiring another person," said Moffitt, "but didn't see how we could. But when we learned that we could train someone under the Jobs Optional Program (JOP), we couldn't turn down this opportunity."

A 25-year-old veteran who was an aircraft mechanic in the service and who was attending a local community college was hired under JOP, which provides on-the-job training for up to 44 weeks. The program, funded by the Manpower Administration and operated by State on-the-job training agencies, reimburses the employer for training costs. Starting pay for the veteran hired by Moffitt was $110 a week. In 4 years he will be eligible to take tests leading to certification as an accountant. Moffitt is "more than happy" with his new employee.

Other firms throughout the Delmarva Peninsula appear just as satisfied with the veterans they have hired, and with the manpower programs that often have made hiring and training them possible. Campbell estimates that 10-20 percent of the 425 ex-GI's reported hired in 1972 (NAB personnel say half again that number

XU

former Navy boatswain's mate, Clinton Durham now is a uckdriver for the Paradee Gas Co.

Joseph T. Johnson (below) was placed with Globe Union, an automobile battery manufacturer.

General Foods hired Francis Thompson for a warehouse job.

In less than a year after joining the New York Life Insurance Company through the Hire the Vet program, retired Navy chief radioman J. Frank Hickam (seated, left) sold $1 million worth of insurance. Former Army lieutenant Michael A. Dellinger (right) also was hired through the program. They are shown at a company training and progress review conference.

'Hire the Vet' *continued*

"We're finding pockets around the country now... where there are more jobs than there are veterans."

probably have been hired but were not reported to NAB) through the Hire the Vet program received some type of training funded by the Manpower Administration.

Rotary's Robert Wood, who has hired five former servicemen for his Wilmington home furnishings firm, sees training as a key element in the program's success. Wood, however, has done his training without Government subsidies.

Most matching of veterans with jobs is done through the Wilmington NAB office. When NAB learns that a veteran is returning to the area, it mails him a personnel form to fill out. These forms are circulated among Rotary members, who get in touch with the veterans directly if they are interested in hiring them. NAB also maintains a list of job openings available through Rotary members. When the NAB representative spots a veteran and an opening that seem to suit each other, he calls the employer and asks if he will interview the former serviceman.

The NAB learns about jobseeking veterans in a number of ways. One source of information is the State employment service, which works closely with NAB on the Hire the Vet program. Also, NAB keeps in constant touch with the Project Transition office at nearby Dover Air Force Base. Under Project Transition, a Defense Department program run in cooperation with private employers and unions, servicemen soon to be discharged are trained for civilian jobs.

Jobs aren't created for the veterans—they already exist. National Cash Register Company in Millsboro, Del., for example, didn't create jobs just to be patriotic, but the firm has hired more than 70 veterans. So has Globe Union of Middletown, Del., an automobile battery manufacturer. Clark Equipment Corporation in Dover, which makes heavy industrial equipment, has put some 40 ex-GI's to work and the Getty Oil Company refinery in Delaware City has hired more than a dozen, most of them in process operator jobs that start at $4.35 an hour. The average pay of all those hired under the Delmarva project is estimated at about $2.50 to $2.60 an hour.

News of the Delmarva Hire the Vet program and its accomplishments spread quickly and other Rotary districts began adopting it. District 695 in Orlando, Fla., encompassing 44 clubs and 2,600 members, took it up, followed by districts in Texas, California, and other States until more than 800 clubs in 127 districts across the country are now promoting the hiring of veterans.

"Other agencies, such as The American Legion, the American Red Cross, and others are helping vets find jobs," said NAB's Reed, "but they aren't doing it quite on the scale that Rotary is.

"We're finding pockets around the country now, such as in St. Louis and South Carolina, where there are more jobs than there are veterans," he continued. "This indicates that the Hire the Vet program still can place many more veterans and keep up its record of success." □

XU

'Hire the Vet' *continued*

"We're finding pockets around the country now... where there are more jobs than there are veterans."

Skills he learned as a Navy data processing technician now are being put to use by James R. Chilcutt in his job as a computer programer for the Bank of Delaware.

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Words & Figures

Occupational Training Under MDTA

The "purpose clause" of the Manpower Development and Training Act (MDTA) says that two goals of the legislation are to alleviate current and prospective manpower shortages through training and to provide the unemployed and underemployed with skills that are or will be in demand in the labor market. Over the years these closely associated goals have guided the selection of occupations in which training is offered under MDTA.

In fiscal year 1972, approximately 40 percent of all training under the MDTA Institutional (classroom) program was concentrated among five high-demand occupational categories: Professional and technical health workers; practical nurses and nurse aides; stenographers, typists, and clerks; mechanics and machinery repairmen; and welders.

Training under the State-administered MDTA Jobs Optional Program (JOP) and national on-the-job training (OJT) programs has a wider distribution of occupations with significant concentration in only a few fields. Construction, metal fabricating, and machinery repair work account for almost 25 percent of the on-the-job training under MDTA.

In terms of numbers, mechanics and machinery repairmen was the largest MDTA occupational specialty in 1972 with 23,100 enrollees. Forecasts are that national demand in these occupations will average 130,000 jobs a year during the 1970's as a result of employment growth and retirement and deaths of workers in the occupation.

The demand for health care exploded in the 1960's and rapid expansion of employment is expected to continue in the future. Over 9,300 persons entered MDTA programs in fiscal 1972 for training as medical and other health related technicians or for updating professional nursing skills. Another 6,300 were preparing themselves for jobs as practical nurses and nurse aides.

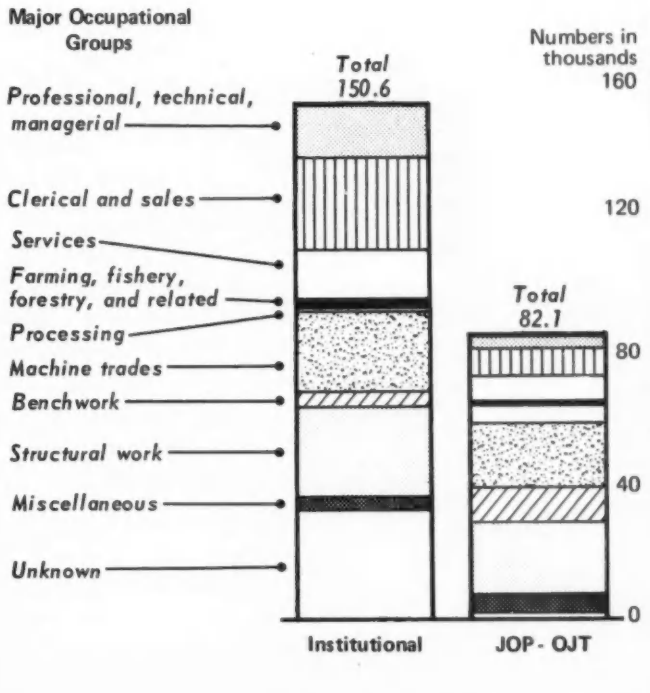
While employee turnover is high among secretarial and clerical workers, especially among women who leave the labor market to assume family responsibilities, there has been real growth and a continuing high demand in secretarial occupations. In 1972 almost 19,000 people enrolled in MDTA courses offering these skills.

Employment in the building trades is expected to increase rapidly in the years ahead under conditions of high economic activity. To meet the need for skilled workmen, MDTA programs have encouraged the enrollment of disadvantaged persons in preapprenticeship courses to acquire the basic background necessary to advance to the highly skilled crafts. In 1972, 14,200 individuals entered preapprentice and other projects designed to impart basic construction skills.

In 1970, there were 535,000 welders and flame cutters employed throughout the country, an increase of 174,000 over 1960. MDTA projects enrolled 12,600 trainees in welding and related occupations.

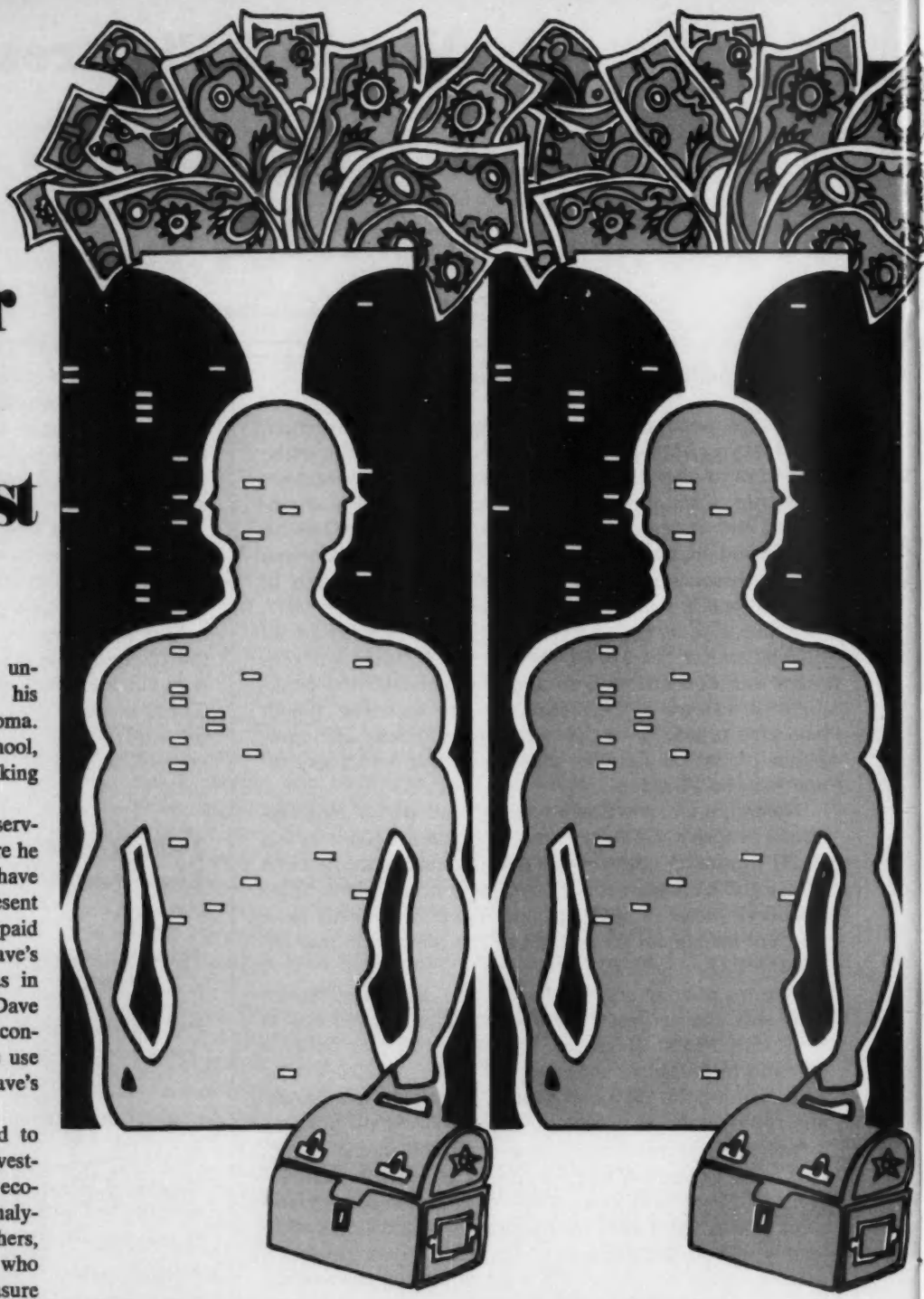
Overall, 36 percent of MDTA training was provided in the occupational areas listed above. In addition, these occupations also probably account for many of the 32,200 trainees whose training occupations are unknown because they enrolled at skill centers or in other projects which provide a variety of training choices.

Training Under MDTA by Occupation-- Fiscal Year 1972



Manpower Training and Benefit-Cost Analysis

by Irene Jacobs



Three years ago "Dave" was an unskilled, unemployed ex-convict in his thirties without a high school diploma. He still has not completed high school, but now he is a skilled mechanic making $10,000 a year.

Without vocational rehabilitation services from the State of Wisconsin, where he lives, Dave probably could not have learned his trade or received his present skilled job. The State already had paid out $11,500 in welfare to support Dave's wife and two children while he was in prison; and there is a possibility that Dave might return to prison. Under these conditions, was it wise for Wisconsin to use taxpayers' money to subsidize Dave's training?

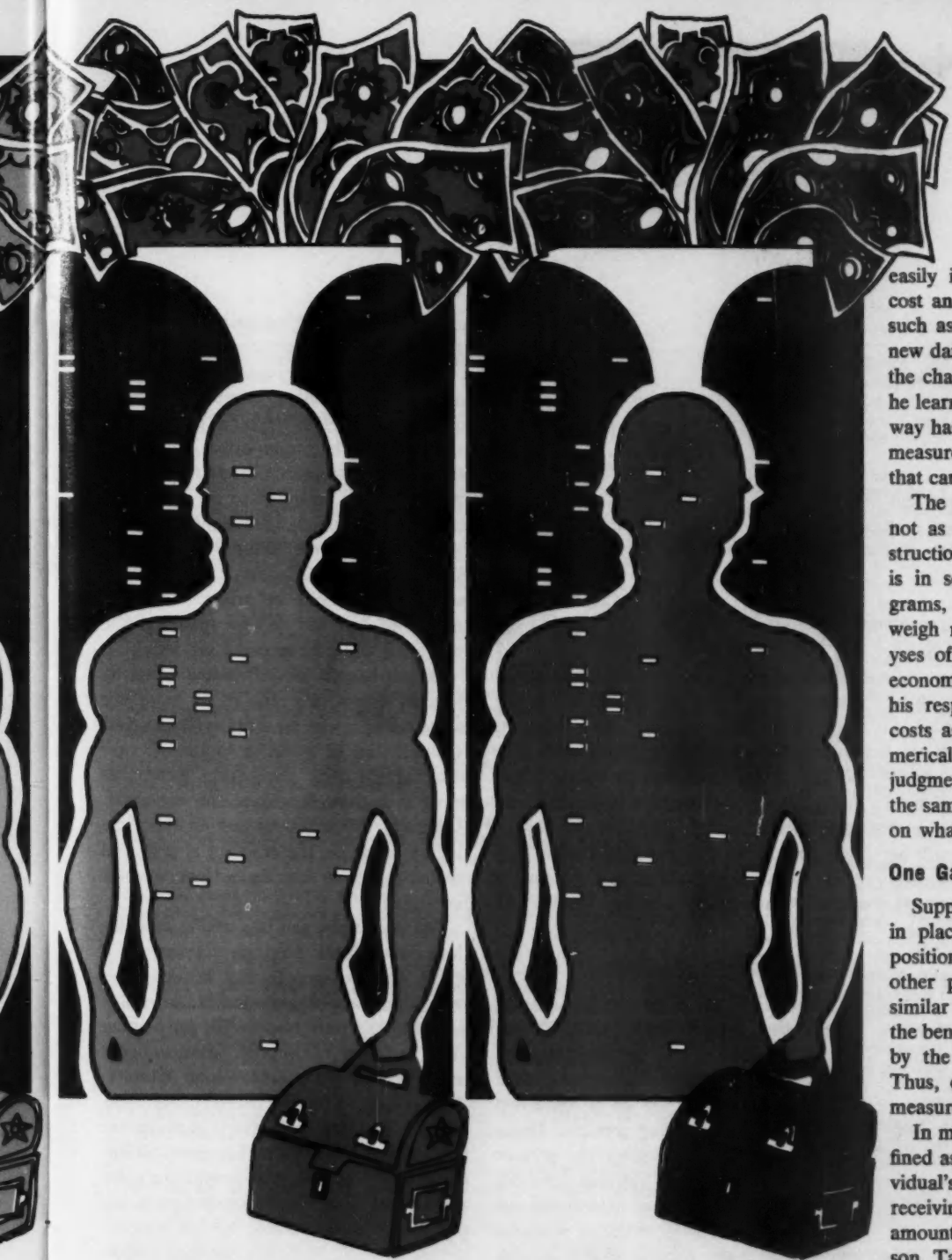
The answer to this question (and to similar ones about other program investments) often is sought through an economic technique called benefit-cost analysis. By using this technique, researchers, program planners, and the people who allocate government funds can measure their efforts in dollars-and-cents terms. When applied to public programs, benefit-cost analysis usually is used to show that for every dollar invested in a program a certain number of dollars has resulted in taxable, monetary benefits to the individual, the community, and ultimately the economy.

Benefit-cost analysis is not a new idea. Investors, notably in the stock market, have used it for years to decide when to buy and when to sell stocks. It has been applied, consciously or not, by people to their everyday lives. Many families, for example, have used their own version to figure out whether it would be cheaper in the end to add a room on their present home or to buy a bigger home.

In 1965, the Federal Government officially adopted benefit-cost analysis as part of a "new planning, programing, and budgeting system." The purpose was "to improve the efficiency and effectiveness" of all Federal programs—from road and water projects, to weapons development, to manpower services—by looking at their economic outcomes.

At first glance the benefit-cost tech-

Irene Jacobs is the editor and science writer for the University of Wisconsin's Regional Rehabilitation Research Institute. The information about benefit-cost analysis presented in this article is based on research conducted for *The Economic Impact of an Expanded Program of Vocational Rehabilitation*, by George H. Wright and Kenneth W. Reagles, one in a series of monographs published by the Institute.



nique may appear to be nothing more than simple addition and division. All you need to do is add up the benefits in one column, the costs in another, and compare the two. In the economist's world, the result is expressed as a ratio, the benefits being divided by the costs. If benefits total $10,000 and costs $200, the result is a ratio of 50 to 1. This means that for every dollar invested, $50 has resulted in taxable, monetary benefits to the economy.

Benefit-cost ratios can be negative as well. Benefits might total $200, and costs, $1,000—meaning that for every dollar spent only 20 cents is returned. But it is never this simple, and this is why the technique is rarely understood.

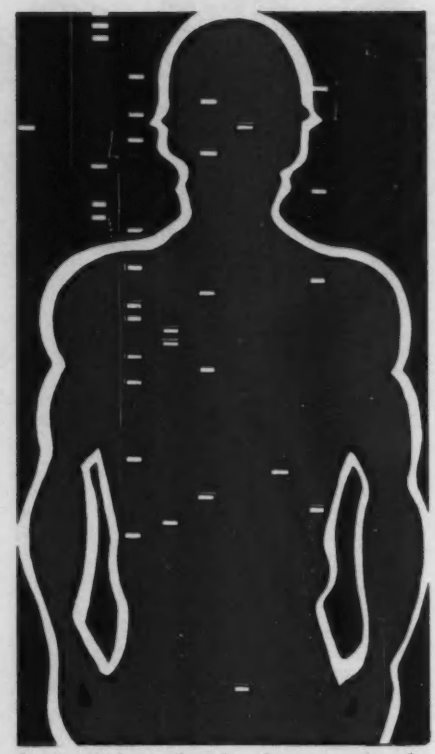
The idea of applying benefit-cost analysis to Federal programs seems logical and practical. But difficulties arise when the technique is used to evaluate programs having aspects that cannot be translated easily into numbers or dollars. Benefit-cost analysis cannot measure intangibles, such as the value the public places on a new dam or a supersonic transport plane, the change in a person's self-image when he learns a skill, or the effect a new highway has on the ecology of an area. It can measure only those aspects of a program that can be stated in monetary terms.

The problem of intangibles usually is not as great in evaluating highway construction or water resource projects as it is in social action and manpower programs, where human benefits may outweigh monetary ones. Benefit-cost analyses of social service programs give the economist headaches because it often is his responsibility to define benefits and costs as well as to measure them in numerical terms. This requires subjective judgments, and two economists analyzing the same program may differ substantially on what constitutes benefits and costs.

One Gains, Another Loses

Suppose, for example, a trainee is hired in place of another person seeking the position. While the trainee benefits, the other person loses if he cannot find a similar position. From a social viewpoint, the benefits to the trainee may be canceled by the misfortune to the other person. Thus, definition of benefit, let alone its measurement, is beset with difficulties.

In most cases, a benefit is narrowly defined as the projected increase in an individual's lifetime earnings as a result of receiving services, and the cost is the amount of money spent to help the person. Take the case of ex-convict Dave as an example. (Dave actually is a composite of a number of people in similar situations.) To find out whether the State's investment in his training course was wise, the economist first adds up all the benefits. He assumes that, under normal conditions, Dave will retire when he reaches age 65. Since Dave was 35 when he finished the mechanic's training course and got his job, he has 29 years left to work. If he continues to earn



$10,000 a year for 29 years, the economist theorizes, Dave's projected lifetime earnings after training would be $290,000.

But this figure does not tell the whole story. Because the economist must be as accurate as possible, he cannot ignore the possibility that Dave might be injured and have to retire early, might be laid off and unemployed for some time, or might die before age 65.

The economist must take into account these possibilities when calculating Dave's remaining working life and thus the benefit to him and the economy from his training. To get a more realistic figure of the number of years a healthy, 35-year-old man actually will be employed, the economist uses statistics on previous trends to determine whether the chance is, for example, 1 in 10, 1 in 100, or 1 in 1,000 that Dave's earning years will be cut short by injury or death. The economist determines that in terms of probability Dave has only 27 years—rather than 29—left to work. Earnings of $10,000 a year for 27 years thus reduces Dave's projected earnings to $270,000.

But the economist is not finished with Dave yet. In the same way that he modified the number of Dave's working years, the economist adjusts Dave's lifetime salary. Productivity is considered first. Available statistics show that over the past several decades workers have produced—and therefore earned—3 percent more each year than they did the previous year. Based on this rate, the $10,000 Dave earns the first year will increase to $10,300 the second year, to $10,609 the third year, and so on for the 27 years he has left to work.

Next, the "discount rate" for Dave's salary must be considered. The money Dave makes this year is treated as if it is worth more than the money he will make next year or 10 years hence, since some of the money he takes home today can be invested and earn interest or dividends. Using what he deems to be the appropriate discount rate, the economist determines the present value of each year of Dave's projected lifetime salary. After giving all this information (and in some cases more) to the computer, the economist determines that for benefit-cost purposes Dave's total salary for the remaining 27 years of his working life will be $256,500.

Other Earnings Subtracted

There is still one other consideration in determining the economic benefit of the cost of the training and services Dave received. The economist assumes that Dave would have found a job as an unskilled laborer without receiving services. Using wage statistics, he calculates the present value of Dave's lifetime earnings from his laborer job, and arrives at an average annual figure of $6,000. Without services, Dave could have earned $6,000 a year for 28 years (1 year is added because he would not have to take a training course), or $168,000 in his lifetime. The actual projected increase in Dave's earnings as a result of the services he received, then, is the difference between $256,500 and $168,000, or $88,000.

Calculating the cost of helping Dave is less complicated than estimating the benefit, although what is considered a cost depends on the economic theory being used. In general, program costs are such things as medical treatment, training and education courses, salaries (counselor, secretary, supervisor, director), office space, and other overhead expenses. The more specific the economist is in calculating the cost, the more objective the benefit-cost ratio is assumed to be. In Dave's case, costs totaled $2,000. This figure obviously does not include the $11,500 that had been paid to his family for support while he was in prison. The cost usually is only the money spent on the individual while he received services.

Dave's benefit of $88,000 divided by the cost results in a ratio of 44 to 1. For every dollar spent on helping Dave, $44 is considered to result in increased, taxable income and purchasing power as benefits to himself and to the economy. According to the benefit-cost analysis, the money spent on the training course and related services for Dave was a wise investment.

The economist can use similar calculations to evaluate program services to a whole group of people. For instance, the researchers, counselors, and State administrators who were responsible for helping Dave and over 1,000 other disadvantaged and disabled people in Wood County, Wis., through a special project from 1965 to 1969, assessed their efforts in monetary terms. They found that for every dollar invested in services to all participants, including those who did not complete the program, $26 in taxable income was returned to each medically disabled person who was rehabilitated and $70 in taxable income to each disadvantaged rehabilitant.

Because human factors and subjective judgments are involved, benefit-cost analysis is not a precise tool for assessing manpower and related programs. But until a better method is devis d, it probably will continue to be used often to apply an economic yardstick to these efforts. □

R&D Reports

Following is a selected list of reports—interim and final—submitted during fiscal year 1972 under contracts and grants from the Office of Research and Development, Manpower Administration, U.S. Department of Labor. The list, compiled from the 1972 edition of *Manpower Research and Development Projects*, excludes reports submitted under the doctoral dissertation research grants programs and institutional manpower research grants. It also excludes a few reports which are not yet available from the National Technical Information Service (NTIS), which serves as a depository for all reports completed under projects funded by the Manpower Administration's Office of Research and Development.

Please order copies directly from NTIS, 5285 Port Royal Road, Springfield, Va. 22151. Send remittance ($3 for a paper copy unless a higher price is indicated and 95 cents for microfiche) with order and specify accession number (PB plus 6-digit number) given in the listing. Sources other than NTIS are incidated for a few publications; these may be ordered from the listed source.

Analysis of WIN Team Functioning and Job Requirements, by Richard P. Kern, Human Resources Research Organization. Contract 51–49–70–03. Phase I: Duty and Task Performance of Teams and Team Members, PB 202811; Final Report: Duties Performed and Style of Functioning in Relation to Team Effectiveness, PB 210463.

Approaches to Relocation: North Carolina Mobility Project, 1970–71, by North Carolina Manpower Development Corporation. Contract 82–37–71–04. PB 211218.

The First Year: Training the Laid-Off Worker, by United States Research and Development Corp. Contract 82–34–70–31. PB 210789.

Health Services Mobility Study, Technical Report No. 11 (Progress Report for the Period October 1967 Through March 1972), by Eleanor B. Gilpatrick, The City University of New York. Contract 82–34–69–34. PB 210912.

An Assessment of the Experimental and Demonstration Interstate Program for South Texas Migrant Workers, by Abt Associates, Inc. Contract 82–23–70–16. Vol. I, Final Report, PB 204550; Vol. II, Summary, PB 204551; Vol. III, Appendixes, PB 204552; The Texas Assessment, PB 21190.

Demonstration of Manpower Development Centers in North Carolina Communities, by North Carolina Manpower Development Corporation. Contract 82–35–70–01. Vol. I, PB 201161; Vol. II, PB 201162.

Developing Model Neighborhood Youth Corps Programs for Rural Youth, Phase I, by Guy H. Miles, North Star Research and Development Institute. Contract 41–1–001–27. PB 202826.

Development of Guidance Measures for Youth Work Training Program Enrollees: Phase I, Measurement of Program Objectives and the Development of Criteria, by Norman E. Freeberg and Richard R. Reilly, Educational Testing Service. Contract 41–9–005–32. PB 202807.

Emergency Action Plan for Public Service Employment, by National Civil Service League. Contract 82–09–70–24. PB 202818.

Employment Contexts and Disadvantaged Workers, by J. David Roessner, Bureau of Social Science Research, Inc. Contract 51–09–70–02. PB 206492.

Final Report of SNAP/SMART II: A Simulation-Based Occupational Training Project, by Alan Letofsky, Educational Computer Corporation. Contract 82–32–70–06. PB 210864.

Final Work Sample Evaluation Development Project, by Jewish Employment and Vocational Service. Contract 82–40–69–36. PB 210244.

An Instructional Program for Employability Orientation. by William C. Osborn et al., Human Resources Research Organization. Contract 51–49–70–06. PB 207395 ($6); Development of a Program of Instruction for WIN Employability Orientation, PB 210090.

The Impact of Urban WIN Programs, by Dr. Bradley R. Schiller, Pacific Training and Technical Assistance Corporation. Contract 51–09–70–10. PB 210469 ($4.85).

A Longitudinal Study of Selected Out-of-School Neighborhood Youth Corps-2 Programs in Four Cities, by Regis H. Walther, The George Washington University. Contract 41–0–003–09: Report of Phase I, PB 210176; Phase II, PB 210177.

National Pilot Program on Household Employment: Final Report of the Experimental and Demonstration Projects, by National Committee on Household Employment. Contract 82–34–66–18. PB 203790.

North Carolina Manpower Development Corporation Mobility Project, by North Carolina Manpower Development Corporation. Contract 87–35–68–06. PB 208509.

Operation Pathfinder — Shaping Work Behavior of Ex-Offenders and Other Disadvantaged People Using Social Reinforcement Techniques, by The Mentec Corporation. Contract 82–05–70–05. PB 209293; How to Maintain a Social Reinforcement Program, PB 209294; How to Train Supervisors in Behavior Modification, PB 209296; Job Behavioral Analysis Manual, PB 209295; Supervisory Workbook in Behavior Modification, PB 209297.

Restructuring Paramedical Occupations: A Case Study, by Harold M. Goldstein and Morris A. Horowitz, Northeastern University. Contract 41–9–004–23: Vol. I, PB 211113; Vol. II, PB 211114 ($6).

A Study of the Relationship of Overindebtedness and Garnishment to Employability Among Milwaukee WIN Families, by Rita L. Youmans and Arlene Miller, Center for Consumer Affairs, The University of Wisconsin. Contract 51–53–69–12. PB 208335.

Staff Attitudes and Success of the WIN Program: A Report on Phase I Results, by Gloria Cowan, Wayne State University. Contract 51–24–70–07. PB 205988.

Recruiting, Placing, and Retaining the Hard-to-Employ: Factors Influencing the Retention of Participants in a Concentrated Employment Program and in Their Subsequent Employment, by Morgan V. Lewis, Elchanan Cohn, and David N. Hughes, Institute for Research on Human Resources, The Pennsylvania State University. Contract 41–8–004–40. PB 204600.

Short-Term Training Program for WIN and Public Welfare Personnel, by Ina Sullivan, Graduate School of Social Work, Rutgers—The State University. Grant 92–34–70–14. PB 211803.

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Mary Doolittle describes them as young women from "deep in the have-not sector of our society." Their backgrounds and experiences are miles apart from those of most middle class girls. But, Mary Doolittle says, "Like other youth, they are striving for something different, trying to break boundaries, testing acceptable and unacceptable ways, and seeking their own identity." How the Job Corps center she headed for 7 years helped these young women find their identities is part of the story Mary Doolittle tells in an interview beginning on page 8 in this issue of MANPOWER.